

CORPORATION PROCEEDINGS  
COMMON COUNCIL  
CITY HALL - BUFFALO  
TUESDAY, November 16, 2010  
AT 2:00 P.M.

Present – David A. Franczyk, President of the Council, and Councilmembers: Fontana, Golombek, Haynes, Kearns, LoCurto, Rivera, Russell & Smith - 9

Absent - None

On a motion by Mr. Fontana, Seconded by Mr. Rivera, the minutes of the stated meeting held on November 3, 2010 were approved.

	* AYE *	NO *
FONTANA	*	*
FRANCZYK	*	*
GOLOMBEK	*	*
HAYNES	*	*
KEARNS	*	*
LOCURTO	*	*
RIVERA	*	*
RUSSELL	*	*
SMITH	*	*
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	*	*

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FROM THE MAYOR

November 16, 2010



SINGLE PAGE COMMUNICATION TO THE COMMON COUNCIL

TO: THE COMMON COUNCIL:  
DATE: November 9, 2010

FROM: DEPARTMENT: Mayor/Executive

SUBJECT: Permission to hang banners -  
Buffalo World Junior Hockey Championship

PRIOR COUNCIL REFERENCE: (IF ANY)  
Ex. (Item No. xxx, C.C.P. xx/xx/xx)

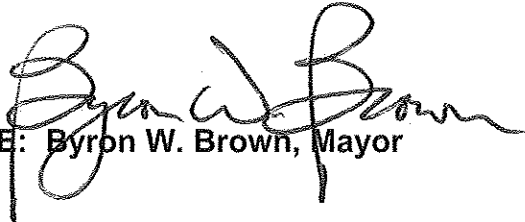
The City of Buffalo will host the Buffalo World Junior Hockey Championship on December 26, 2010 – January 5, 2011 at HSBC Arena.

I hereby request permission to hang 22 banners (24" x 72") on Washington Street from Perry to Seneca Street; 2 banners 26" x 9'), 16 flags (2' x 3') and 2 across street banners (3' x 25' and 4' x 30') on Chippewa Street from Washington to Elmwood; 112 banners (26" x 9') on Main Street from Seneca to West Tupper and 2' x 3' flags on Delaware Avenue from Chippewa to Allen Street.

The banners, flags and across street banners will be on display from November 25, 2010 through January 15, 2011.

SIGNATURE

DEPARTMENT HEAD TITLE: Byron W. Brown, Mayor



A

## **Buffalo World Junior Street Banners**

### **Washington Street**

Location: Perry to Seneca Street

Number of Banner Brackets: 22

Banner Needs: 22

Size: 24" x 72"

### **Chippewa Street**

Location: Washington to Elmwood

Number of Banner Brackets: 2

Banner Needs: 2

Size: 26" x 9'

Number of Flag Brackets: 16

Flags Needs: 16 - Canada, Finland, Norway, Slovakia, Switzerland, Czech Republic, Germany, Russia, Sweden, and United States – Intermix nation flags along street.

Flag Pole Needs: 16

Size: 2' by 3'

Number of Across Street Banners: 2

Banner Needs: 2

Size: 3' x 25' and 4' x 30'

## **Main Street**

Location: Seneca to West Tupper

Number of Banner Brackets: 168

Banner Needs: 112

Size: 26" x 9'

- 112 – Plan is to remove all current CVB banners and replacing with Buffalo World Junior Welcome Banners.

## **Delaware Avenue**

Location: Chippewa to Allen Street

Number of Flag Brackets: TBD

Flags Needs: TBD - Canada, Finland, Norway, Slovakia, Switzerland, Czech Republic, Germany, Russia, Sweden, and United States.

Flag Pole Needs: TBD

Size: 2' by 3'

- Request was submitted on 10/27 to the CVB requesting number of flag brackets available to determine number of flags and poles to purchase.

Projected installation by November 25<sup>th</sup> through January 15<sup>th</sup> ....with additional flags ordered to replace as needed throughout the period.

Mr. Fontana moved:

That the communication from the Mayor, dated November 9, 2010, be received and filed;  
and

That the Commissioner of the Department of Public Works, Parks and Streets be, and he hereby is authorized to hang 22 banners, as more fully described at locations as listed in the above communication, from November 25, 2010 through January 15, 2011 for the Buffalo World Junior Hockey Championship at HSBC Arena.

Passed

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\* AYE \* NO \*

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FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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3/4 - 7

FROM THE MAYOR - EXECUTIVE DEPARTMENT

November 16, 2010

FROM THE OFFICE OF CITIZEN SERVICES

## COMMUNICATION TO THE COMMON COUNCIL

TO: THE COMMON COUNCIL

DATE: November 4, 2010FROM: DEPARTMENT: Office of the MayorDIVISION: Citizen ServicesSUBJECT: Submission of Monthly Report- October 2010

The Office of Mayor, Division of Citizen Services, hereby submits, for your Honorable Body's review and approval, the monthly reports for the Mayor's Call and Resolution Center for the month of October 2010, as mandated by Section 6-20(c) of the City of Buffalo's City Charter. This monthly statistical report details the number and nature of inquiries, requests and complaints received.

Department Head Name: Oswaldo Mestre Jr.Title: Director, Citizen ServicesSignature of Department Head: 

RECEIVED AND FILED



**City of Buffalo  
Citizen Services  
218 City Hall**

*Calls Between 10/1/2010 and 10/31/2010*

Name	Opened During Period
Administrative Adjudication	3
Americorp	4
Anti-Graffiti Program	8
Assessment Issue	3
BFD Fire Issue	5
Block Club CleanUp	1
Board of Education	6
BPD Employee Issue	6
Buffalo Police Department	134
Citizen Rights	1
Citizens' Information	28
City Clerk Issue	3
City Parks	3
CityClerk Dog License	11
EDPIS	715
Graffiti PW Traffic	1
HR Civil Service Issue	1
HR Comp and Benefits	2
Illegal Dumping OSP RealEstate	2
Illegal Dumping PW_Curb	9
Illegal Dumping PW_Street	3
Inrem Real Estate	28
Law Claims	18
NationalGrid Streetlights	327
Neighborhood CleanUp	5
Neighborhood Watch	2
Olmsted Parks	6
Pest	85
PVB Abandoned Vehicle	8
PVB Meter Issue	21
PVB Parking Issue	64
PW Adj Violations	32
PW Animals	76
PW Bridge Issue	3
PW Buildings Maintenance	2
PW Bulk Trash	22
PW Cave In	12
PW City Forester	11
PW City Park Tree Issue	2
PW Curbs	18
PW Damage from Sts Worker	4
PW Damaged Street Light Pole	12
PW Dead Animal Removal	32
PW Excess Trash	2
PW Forestry SubContractor	178
PW Fridge	2
PW Garbage Missed Pickup	134
PW Leaves / Lawn Debris	16
PW Missed 2_Piece Trash	28

# 218 City Hall

Calls Between 10/1/2010 and 10/31/2010

Name	Opened During Period
PW Other Hole in Road	10
PW Park Garbage Pickup	1
PW Pavement Markings Lane Lines	1
PW Pavement Markings Other	2
PW Paving	40
PW Pot Hole	49
PW Recycling Bin Delivery	18
PW Recycling Missed Pickup	142
PW Recycling Personnel Issue	7
PW Right of Way Issue	7
PW Rodents	109
PW Sanitation Personnel	17
PW Sidewalks	96
PW Sign Hazards	23
PW Sign Maintenance	54
PW Signal Other Issue	14
PW Signal Timing Issue City	10
PW Special Event Totes	2
PW Street Salting	1
PW Streets Personnel	4
PW Sweeper	13
PW Totes	682
PW Totes Audit	46
PW User Fee	2
PW Vacant Lot	26
Quick Response Teams	59
Recycling Bin Pickup	32
Save Our Streets	4
Sewer	25
Taxation Issue	7
Telecommunications	1
Water	23
Website Issues	1
Weed and Seed	1

FROM THE CITY PLANNING BOARD

000003  
**SEQRA Notice of Determination  
Non Significance**

**Negative Declaration**

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (SEQR – State Environmental Quality Review) of the Environmental Conservation Law.

**Lead Agency:** City of Buffalo Planning Board  
Room 901, City Hall  
65 Niagara Square  
Buffalo New York 14202

As per the provisions of SEQR, the Lead Agency has reviewed the following action as it relates to the environment:

**Action Title** 310 Jersey Street Renovation

**Location:** 310 Jersey Street

**Type of Action:** Type I- Coordinated

**Description:** TRM Architects on behalf of Albino Glass Company is proposing the rehabilitation and renovation of a former firehouse and later a contractor office and shop (Hogan Restoration) on the property located at 310 Jersey Street, Buffalo New York. The building did house the former Engine #2 of the Buffalo Fire Department. The firehouse was originally built in 1875 has had many modifications including new garage doors, windows and entry doors replaced. The new work will include both interior and exterior projects. The rehabilitation will replace the existing windows and doors, two new front entrances, a modification of a garage door opening into a store front, a complete replacement of the roof and the construction of a stair tower in the rear courtyard of the property. Site work will include new sidewalks, driveway, courtyard parking and new landscaping. The interior will receive work in all areas of the first, second and third floor. Four apartment units will be constructed on the second floor with two (2) two (2) story apartments, with their bedroom quarters on the third floor. The new stair tower in the rear courtyard will serve as a second means of egress to a new enclosed stair that will be built within the existing building. A retail space will be constructed in the existing ladder bay space. The garage will remain for use by the owner. The project will be privately funded in the amount of approximately 1,000,000 dollars. This project will also involve the use of tax credits and a formal submittal will be made to the New York State Office of Parks, Recreation and Historic preservation. The City of Buffalo Preservation Board has reviewed this project. City of Buffalo Zoning Board approval will be required.

**As a result of this Environmental Review**, the Lead Agency has determined the undertaking of this action will not have a significant adverse affect on the quality of the environment. No further environmental review of this action will be conducted prior to project implementation and a Draft Environmental Impact Statement will not be prepared.

**Reasons Supporting This Determination:** The facts and reasons for this decision are as follows: this project will preserve an unoccupied, deteriorating building that is important to the community as well as the City of Buffalo. The identified potential negative impacts appear to be primarily short-term site preparation and construction related activities, and do not appear to be significant in magnitude or effect. There are no actions, which will have a significant adverse impact on the environment.

For further information relative to this Negative Declaration, contact Mr. Martin Grunzweig, Land Use Controls Coordinator, Room 901 City Hall, Buffalo New York 14202 – 716 851-5085

Dated: November 9, 2010

**RECEIVED AND FILED**

CC: City Clerk  
City of Buffalo Public Works, Parks, Streets Department  
City of Buffalo Economic Development, Permits and Inspection  
City of buffalo Zoning Board  
TRM Architects

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FROM THE OFFICE OF STRATEGIC PLANNING

00004

# 1 (Rev. 2/01) SINGLE PAGE COMMUNICATION TO THE COMMON COUNCIL

TO: THE COMMON COUNCIL:

DATE: November 10, 2010

FROM: DEPARTMENT: Office of Strategic Planning

DIVISION: General Office

SUBJECT: [ Massachusetts Avenue Housing Development  
Plan PILOT,  
397, 398 and 460 Massachusetts Avenue  
[

PRIOR COUNCIL REFERENCE: (IF ANY) [  
Ex. (Item No. , C.C.P. )

TEXT: (TYPE SINGLE SPACE BELOW)

Your Honorable Body is hereby requested to approve a PILOT agreement between the City of Buffalo, the County of Erie, and Massachusetts Avenue Housing Development Fund Corporation (Massachusetts).

Massachusetts is an entity formed by People United for Sustainable Housing, Inc. ("PUSH"). Massachusetts proposes to rehabilitate 11 units of affordable housing at 397, 398 and 460 Massachusetts Avenue. Of the eleven (11) units, four (4) will be one-bedroom apartments, four (4) two bedroom apartments, and three (3) three-bedroom apartments.

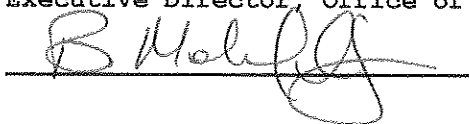
The total cost of the project is \$1,885,523. Funding sources include HOME federal funds of \$400,000; Housing Trust Fund (HTF) in the amount of \$1,347,313; Urban Initiatives in the amount of \$100,000, and PUSH in the amount of \$38,210.

The amount of the PILOT payments was calculated based upon the City's PILOT policy that provides for payments in the amount of three percent (3%) of the total income of proposed budget, assuming a five percent (5%) vacancy. Payments will increase by three percent per year for the duration of the 15-year Pilot.

TYPE DEPARTMENT HEAD NAME: Brendan R. Mehaffy,

TYPE TITLE: Executive Director, Office of Strategic Planning

SIGNATURE OF DEPARTMENT HEAD:



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**AGREEMENT FOR  
PAYMENTS IN LIEU OF TAXES**

**THIS AGREEMENT** for payments in lieu of taxes is made as of the \_\_\_\_ day of \_\_\_\_\_ 2010, by and among the **CITY OF BUFFALO**, a municipal corporation organized and existing under the laws of the State of New York, having its principal office at City Hall, 65 Niagara Square, Room \_\_\_\_\_, Buffalo, New York 14202 (the "City"), the **COUNTY OF ERIE** a municipal corporation organized and existing under the laws of the State of New York, having its principal office at c/o Erie County Department of Finance, 95 Franklin Street, Buffalo, New York 14202 (the "County"), and Massachusetts Avenue Housing Development Fund Corporation a New York not-for-profit corporation organized under Article 11 of the New York State Private Housing Finance Law, having its principal office and place of business at 271 Grant Street, Buffalo, New York 14213 (the "Taxpayer") for the making of certain payments in lieu of real property taxes by the Taxpayer (the "PILOT Agreement").

**WITNESSETH:**

**WHEREAS**, Taxpayer holds equitable and beneficial ownership of a tract of land improved with three (3) buildings and commonly known as at 397, 398 and 460 Massachusetts Avenue, City of Buffalo, County of Erie and State of New York and as further described in **Exhibit A**, attached hereto and made a part hereof (the "Land"), and is the owner of eleven (11) units of affordable housing located on the Land and known as **Massachusetts Avenue Development Plan** (the "Project"); and

**WHEREAS**, the development of the Project is of vital public interest to the City and the County; and

**WHEREAS**, the development of the Project is intended to be affordable to low and very low income households, and affordability of the property for residential use by very low income persons shall remain consistent throughout the duration of the PILOT Agreement.

**NOW, THEREFORE**, in consideration of the covenants and agreements contained in this PILOT Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties covenant and agree as follows:

1. **Tax Exemption.** The parties agree that Taxpayer qualifies for real property tax exemption for the Project in accordance with the provisions of Article 11 of the New York Private Housing Finance Law.

2. **Obligation of the Taxpayer to Make Payments in Lieu of Taxes.** The City and County require, and the Taxpayer shall make payments in lieu of real property taxes to the appropriate taxing authorities pursuant to the real estate tax policies of the City and County, subject to the terms of this PILOT Agreement.

3. **Requirements of Taxpayer.**

a. The development of the Project shall be carried out in accord with the provisions of Article 11 of the New York Private Housing Finance Law and in compliance with the reasonable requirements of the Planning Board of the City of Buffalo.

b. The PILOT Agreement period is to commence on the Commencement Date, as hereinafter defined, and be concurrent with the Project's use as affordable housing and for so long as a municipality aided, state aided and/or federally aided mortgage is outstanding on the Project, but shall not exceed fifteen (15) years.

c. The Taxpayer shall provide the City and County such information concerning its operations and the operations of the Project in form and substance as may from time to time be reasonably requested. Such information shall include but shall not be limited to the annual financial statements of the Taxpayer from the calendar year immediately preceding the fiscal year in which payments are due.

d. The Taxpayer shall permit the Comptroller of the City and County to audit its books and records within fourteen (14) days after receiving a written request from the City or County.

e. Transfer of legal title to the land and improvements comprising the Project will not be allowed during the term of this PILOT Agreement without the prior written consent of the City or County.

f. The Taxpayer shall utilize City services for the Project at rates comparable for similar properties.

4. **Taxing Authorities and Amounts.**

a. Upon commencement of the City's next taxable status date following issuance of a Certificate of Occupancy for the Project described herein (the "Commencement Date"), the Taxpayer shall make annual payments in lieu of local and municipal real estate taxes, including school taxes but not including assessments for local improvements and special assessments on the land and buildings constituting the Project as follows:

i) the Taxpayer will make a fixed annual PILOT payment in the amounts as stated in **Exhibit B**, attached hereto and made a part hereof, in satisfaction of all real property taxes;

ii) Twenty-five percent (25%) of the total PILOT payment made each fiscal year will be due to the County, and forwarded directly thereto;



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iii) the remaining portion of the PILOT payment shall be allocated and/or distributed as the City of Buffalo sees fit between the various entities currently assessing taxes against the Project, except the Taxpayer will be responsible for paying all special district assessments and other assessments for local improvements permitted by law;

iv) at the expiration of the fifteen (15) year period, this PILOT Agreement will cease to have any effect on the taxes due with respect to the property and the property will be taxed in accordance with applicable law.

b. Each of the foregoing payments shall be made on or before the date that the particular tax payment would have been due to the City or the County.

c. The accountant for the Taxpayer shall prepare all documents and forms required under this PILOT Agreement.

5. **Defaults in Payment in Lieu of Taxes.** In the event the Taxpayer fails to make any payment in lieu of real property taxes when due, the amount or amounts not so paid shall be a lien on the Project in the same manner that delinquent real property taxes would be and continue as an obligation to the Taxpayer until fully paid. In addition, the Taxpayer shall pay the appropriate taxing authority's or authorities' interest and penalties on the unpaid amount or amounts accruing at the same times and at the interest rates as if such amounts were delinquent real property taxes. In addition to any other remedies available to them for the collection of delinquent real property taxes, including, without limitation, in rem proceedings, the City and County may exercise any other remedies available, and such remedies shall be cumulative and the exercise of any remedy shall not be an action of remedies under law.

6. **Effect of Fulfillment of the Requirement.** Once having paid the amounts required by this PILOT Agreement when due, the Taxpayer shall not be required to pay any real property taxes for which such payments in lieu of taxes have been made, except special district assessments and other special assessments for local improvements permitted by law.

7. **Events of Default and Termination of Tax Exemption.**

a. An event of default ("Event of Default") shall be defined as (1) failure of the Taxpayer to make any payment required under the PILOT Agreement when due, (2) the Taxpayer's failure to provide any notice as required by this PILOT Agreement to the City or the County, (3) Taxpayer's failure to qualify, or continue to qualify, for a real property tax exemption for the Project in accordance with Article 11 of the New York Private Housing Finance Law, (4) failure of Taxpayer to provide any of the information required by Section 3(c) or 3(d) of this PILOT Agreement, or (5) the transfer of title or beneficial ownership of any portion of the Project or the Land.

b. Upon the occurrence of an Event of Default as defined pursuant to Section 7(a) above, the Taxpayer shall have ten (10) days after the receipt of Notice from the City or County regarding such default to cure such default.

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c. In the event the Taxpayer has not cured such default or defaults within the time period set forth in this PILOT Agreement, then the exemption from real property taxes described herein shall be deemed to have been terminated as of the taxable status date of the City's immediately preceding fiscal year.

d. Upon a termination of the exemption from real property taxes set forth in Section 7(c) above, the Taxpayer shall be liable for real property taxes on a pro-rata basis from and after the City's taxable status date immediately preceding the Event of Default and the statutory lien applicable to such real property taxes shall be deemed in effect as of the lien date normally applicable to such year's real property taxes, unless a separate basis for a real property tax exemption then exists for the benefit of Taxpayer.

e. Any such termination of the real property tax exemption applicable to the Project shall not void the liability of the Taxpayer for an unpaid payments in lieu of taxes required by this PILOT Agreement prior to such termination.

8. **Waiver.** No failure on the part of the City or County to exercise, and no delay on the part of the City or County in exercising, any right, power or remedy hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of such right, power or remedy by the City or County preclude any other or further exercise thereof or the exercise of any other right, power or remedy.

9. **Modification.** Neither this Agreement nor any provision hereof may be amended, modified, waived, discharged or terminated, except by an instrument in writing duly executed and agreed to by the parties hereto.

10. **Counterparts.** This Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

Remainder of page intentionally left blank

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IN WITNESS WHEREOF, the City, County, and Taxpayer have duly executed this Agreement as of the day and year first above written.

**COUNTY OF ERIE**

\_\_\_\_\_  
Chris Collins  
County Executive

**Approved as to content  
for Erie County:**

\_\_\_\_\_  
Kathy Konst  
Commissioner,  
Department of  
Environment and Planning

**Approved as to form for  
Erie County:**

\_\_\_\_\_  
Eric R. Ziobro  
County Attorney

Document No.:  
Dated:

Massachusetts Avenue Housing Development Fund Corporation

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

**CITY OF BUFFALO**

\_\_\_\_\_  
Byron W. Brown  
Mayor

**Approved as to content for  
the City of Buffalo:**

\_\_\_\_\_  
Martin Kennedy  
Commissioner,  
Assessment and Taxation

**Approved as to form for the  
City of Buffalo:**

\_\_\_\_\_  
David Rodriguez  
Acting Corporation Counsel

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## Exhibit A

Quit Claim Deed (Individual)

884 1/2

David F. Williamson Co., Inc.  
Elmwood Sq. Bldg., Buffalo, N. Y. 14203

### This Indenture

Made the 7 day of AUGUST Nineteen Hundred and eighty-seven  
Between James E. Costello, 1844 Eggert Road, Amherst, New York  
14226, Harriet Kolveck, 285 Homestead, North Tonawanda,  
New York 14120 and Shirley Moran, 3065 Clover Drive,  
Mesquite, Texas 75150

parties of the first part, and

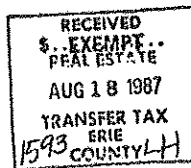
James E. Costello, 1844 Eggert Road, Amherst, NY 14226

party of the second part.

Witnesseth that the said parties of the first part, in consideration of  
One and No More Dollars,  
(\$1 & no more ) lawful money of the United States.  
paid by the party of the second part, do hereby remise, release and forever Quit-Claim  
unto the said party of the second part, his heirs and assigns forever, all

ALL THAT TRACT OR PARCEL OF LAND, situate in the City  
of Buffalo, County of Erie and State of New York, being part of  
Block 189 in said City and further distinguished as Subdivision  
Lot number 3 as shown on a map filed in the Erie County Clerk's  
Office under Cover Number 288 bounded and described as follows:

BEGINNING at a point in the northerly line of  
Massachusetts Avenue 61.60 feet easterly from the easterly line  
of 19th Street; running thence northerly and at right angles to  
Massachusetts Avenue 120 feet; thence easterly and parallel to  
Massachusetts Avenue, 29.60 feet; thence southerly at right  
angles 120 feet to the said line of Massachusetts Avenue; thence  
westerly along said line of Massachusetts Avenue, 29.60 feet to  
the place of beginning.



**Exhibit B**

<b>Year</b>	<b>Total Payment</b>	<b>Payment to the City of Buffalo</b>	<b>Payment to the County of Erie</b>
1	1638.84	1229.13	409.71
2	1688.00	1266.00	422.00
3	1738.64	1303.98	434.65
4	1790.79	1343.09	447.69
5	1844.51	1383.38	461.12
6	1899.84	1424.88	474.96
7	1956.83	1467.62	489.20
8	2015.53	1511.64	503.88
9	2075.99	1556.99	518.99
10	2138.26	1603.69	534.56
11	2202.40	1651.80	550.60
12	2268.47	1701.35	567.11
13	2336.52	1752.39	584.13
14	2406.61	1804.95	601.65
15	2478.80	1859.10	619.70

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Mr. Fontana moved:

That the communication from the Office of Strategic Planning, dated November 10, 2010, be received and filed; and

That the Common Council is authorized to approve a PILOT agreement between the City, County of Erie, and Massachusetts Avenue Housing Development Fund Corporation to rehabilitate 11 units of affordable housing at 397, 398 and 460 Massachusetts Avenue, the material terms of which are attached to the above communication.

Passed

TAB:rmv

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL		*	*	*
SMITH	*	*	*	*
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3/4 - 7

# 2 (Rev. 1/93) MULTIPLE PAGE COMMUNICATION TO THE COMMON COUNCIL

TO: THE COMMON COUNCIL: DATE: November 10, 2010

FROM : DEPARTMENT: Strategic Planning

DIVISION: Office of Strategic Planning

SUBJECT: Permission to Designate the City of Buffalo as a  
Recovery Zone

## PRIOR COUNCIL REFERENCE: (IF ANY)

The American Recovery and Reinvestment Act of 2009 ("ARRA") authorizes several new types of bonds including "Recovery Zone Facility Bonds," which bonds were created to finance construction, renovation, or acquisition of depreciable property by a private taxpayer of a qualified business in a recovery zone. A "qualified business" is defined to include any trade or business other than residential rental property.

Pursuant to the ARRA, the City of Buffalo (the "City") received authority to issue, or cause to be issued, in a Recovery Zone, up to \$7,151,000 of Recovery Zone Facility Bonds (the "Allocation"). The Recovery Zone Facility Bonds will not be a debt or obligation of the City. A Recovery Zone is, among other things, any area designated by the City as an area of significant poverty, unemployment, rate of home foreclosure, or general distress. The County of Erie previously designated all of Erie County a Recovery Zone for the allocation of Recovery Zone Facility Bonds issued in Erie County. The action by the County of Erie recognized that no community in Erie County is untouched by the national economic crisis facing this country as reflected by increases in the unemployment rate, the home foreclosure rate, and commercial and residential vacancy rates.

The Office of Strategic Planning has determined that it is in the best interest of the City to recognize and the adopt the County's action by asking this Honorable Body to designate the entire City of Buffalo a "Recovery Zone" for purposes of ARRA. The designation shall immediately authorize the Mayor, for and in the name and on behalf of the City, to do all acts and things required of the City, or provided for by the provisions of the ARRA with respect to the City in connection with the use of the Allocation.

DEPARTMENT HEAD NAME: BRENDAN R. MEHAFFY, ESQ.

TITLE: EXECUTIVE DIRECTOR  
OFFICE OF STRATEGIC PLANNINGSIGNATURE OF DEPARTMENT HEAD: 



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Mr. Fontana moved:

That the above Communication from the Executive Director of the Office of Strategic Planning dated November 10, 2010 be received and filed and that the Common Council hereby:

- Finds, declares and designates the City of Buffalo as a "Recovery Zone" or an area, that; among other things, has significant poverty, unemployment and home foreclosure rates and is further an area of general distress.

- Finds, declares and designates the City of Buffalo as a "Recovery Zone" for purposes of the American Recovery and Reinvestment Act of 2009.

- Through said designation, authorizes the Mayor, for an in the name of the City of Buffalo, to do all acts and things required of the City, or provided for by the provisions of the ARRA with respect to the City in connection with the use of the allocation.

Passed.

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\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

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TO: THE COMMON COUNCIL:

DATE: November 10, 2010

FROM: Dennis Sutton

DEPARTMENT: Office of Strategic Planning

DIVISION:

SUBJECT:

[ : Permission to enter into the NYSDEC  
[ : Environmental Restoration Program and  
[ : pursue a Temporary Incidence of Ownership  
[ : for the purpose of assessing the Lehigh  
[ : Valley Railroad property

PRIOR COUNCIL REFERENCE: (IF ANY) [ :

Article 56 of the Environmental Conservation Law authorizes State assistance to municipalities for environmental restoration program projects (ERP). The Office of Strategic Planning (OSP) believes it to be in the public interest and benefit under this law to enter into a contract with the State for the Lehigh Valley property, located at 110 Fuhrmann Boulevard (see attached map). After thorough consideration of the various aspects of the problem and study of available data, OSP has determined that certain environmental assessment work is desirable and in the public interest. The property is currently in tax foreclosure.

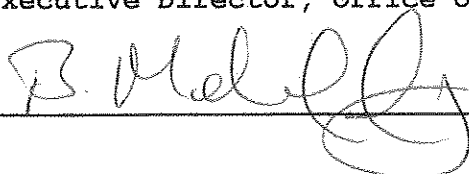
Once the application has been accepted into the NYSDEC ERP the City will pursue a temporary incidence of ownership to gain access to the Lehigh Valley property for the purposes of conducting an environmental assessment prior to potentially assuming title to the property. Funding for the assessment activities will be sought through the U.S. EPA TRIAD program or the NYSDOS BOA program. The assessment information will permit prospective bidders at auction to be fully aware of any environmental liabilities associated with the property.

We request this Honorable body authorize the Mayor to act on behalf of the City in all matters related to State assistance under ECL Article 56, Title 5 for the Lehigh Valley property. Furthermore, we request authorization for the Executive Director of the OSP to make application, execute the State Assistance Contract, submit Project documentation, and otherwise act for the City in all matters related to the Project and to State Assistance.

DEPARTMENT HEAD NAME: Brendan Mehaffy

TITLE: Executive Director, Office of Strategic Planning

SIGNATURE OF DEPARTMENT HEAD:



30  
Mr. Fontana moved:

That the communication from the Office of Strategic Planning, dated November 10, 2010, be received and filed; and

That the Mayor be, and he hereby is authorized to act on behalf of the City in all matters related to State assistance under ECL Article 56, Title 5 for the Lehigh Valley property located at 110 Fuhrmann Boulevard. That the Executive Director of Strategic Planning be, and he hereby is authorized to make application, execute the State Assistance Contract, submit Project documentation, and otherwise act for the City in all matters related to the Project and to State Assistance.

Passed

TAB:rmv

\* AYE \* NO \*

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FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL		*	*	*
SMITH	*	*	*	*
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#1 (Rev. 1/93) One Page Communication to the Common Council

TO: THE COMMON COUNCIL DATE: November 4, 2010

FROM: DEPARTMENT: Office of Strategic Planning

DIVISION: Real Estate

SUBJECT: Report of Sale  
488 Hickory, 369' N Sycamore  
Lot Size: 30' x 114'  
Assessed Valuation: \$1,600.00  
(Ellicott District)

The Office of Strategic Planning, Division of Real Estate has received a request from Ms. Daphne Coleman, 2489 Cayuga Street, Niagara Falls, New York 14304 to purchase 488 Hickory Street. Ms. Coleman owns a two family house at 484 Hickory, which is adjacent to 488 Hickory. She intends to use the vacant lot for additional green space for her tenants.

The Office of Strategic Planning Land Use Planning Committee, Division of Permit and Inspection Services and the Division of Collections have no objections to the sale. There are no building code violations, taxes or other liens owed to the City of Buffalo by the purchaser.

The Division of Real Estate has investigated the sale of similar lots in the subject area. Sales range from Fifty Cents (\$.50) to Seventy Five Cents (\$.75), per square foot.

Ms. Coleman has agreed and is prepared to pay Two Thousand Five Hundred Dollars (\$2,500.00), Seventy Five Cents (\$.75) per square foot for the subject property. She has also agreed to pay for the cost of the transfer tax and recording fees.

I am recommending that Your Honorable Body approve the sale of 488 Hickory to Ms. Daphne Coleman in the amount of Two Thousand Five Hundred Dollars (\$2,500.00). I am further recommending that the Office of Strategic Planning prepare the necessary documents for the transfer of title and that the Mayor be authorized to execute the same.

DEPARTMENT HEAD NAME:

TITLE:

JOHN P. HANNON, JR.

DIRECTOR OF REAL ESTATE

OFFICE OF STRATEGIC PLANNING

SIGNATURE OF DEPARTMENT HEAD:

JPH:ck

Repsale488hickory/re



33  
Mr. Fontana moved:

That the above communication from the Office of Strategic Planning dated November 4, 2010, be received and filed; and

That the offer from Ms. Dalphne Coleman, residing at 2489 Cayuga Street, Niagara Falls, NY 14304, in the sum of Two Thousand and Five Hundred Dollars (\$2,500.00) for the purchase of 488 Hickory, be and hereby is accepted; and

That the transfer tax, recording fees and cost of legal description shall be paid by the purchaser; and

That the Office of Strategic Planning be authorized to prepare the necessary documents for the transfer of title and that the Mayor be authorized to execute the same, in accordance with the terms of sale upon which the offer was submitted.

Passed.

34

\* AYE \* NO \*

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FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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#1 (Rev. 1/93) One Page Communication to the Common Council

TO: THE COMMON COUNCIL DATE: November 4, 2010

FROM: DEPARTMENT: Office of Strategic Planning

DIVISION: Real Estate

SUBJECT: Report of Sale  
225 Loepere, 245.08' N Sycamore  
Lot Size: 30' x 108'  
Assessed Valuation: \$1,600.00  
(Fillmore District)

The Office of Strategic Planning, Division of Real Estate has received a request from Mrs. Shakera A. Choudhury, 207 Loepere Street, Buffalo, New York 14211 to purchase 225 Loepere. Mrs. Choudhury owns a two family house at 223 Loepere, which is adjacent to 225 Loepere. She intends to use the vacant lot for additional green space.

The Office of Strategic Planning Land Use Planning Committee, Division of Permit and Inspection Services and the Division of Collections have no objections to the sale. There are no building code violations, taxes or other liens owed to the City of Buffalo by the purchaser.

The Division of Real Estate has investigated the sale of similar lots in the subject area. Sales range from Forty Cents (\$.40) to Fifty Five Cents (\$.55), per square foot. Mrs. Choudhury has agreed and is prepared to pay One Thousand Five Hundred Dollars (\$1,500.00), Forty Five Cents (\$.45) per square foot for the subject property. She has also agreed to pay for the cost of the transfer tax and recording fees.

I am recommending that Your Honorable Body approve the sale of 225 Loepere to Mrs. Shakera Choudhury in the amount of One Thousand Five Hundred Dollars (\$1,500.00). I am further recommending that the Office of Strategic Planning prepare the necessary documents for the transfer of title and that the Mayor be authorized to execute the same.

DEPARTMENT HEAD NAME:  
TITLE:

JOHN P. HANNON, JR.  
DIRECTOR OF REAL ESTATE  
OFFICE OF STRATEGIC PLANNING

SIGNATURE OF DEPARTMENT HEAD:

JPH:ck  
Reportsale225loepere/real



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36  
Mr. Fontana moved:

That the above communication from the Office of Strategic Planning dated November 4, 2010, be received and filed; and

That the offer from Mrs. Shakera A. Choudhury, residing at 207 Loepere Street, in the sum of One Thousand and Five Hundred Dollars (\$1,500.00) for the purchase of 225 Loepere, be and hereby is accepted; and

That the transfer tax, recording fees and cost of legal description shall be paid by the purchaser; and

That the Office of Strategic Planning be authorized to prepare the necessary documents for the transfer of title and that the Mayor be authorized to execute the same, in accordance with the terms of sale upon which the offer was submitted.

Passed.

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

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#2 (Rev. 1/93) Two Page Communication to the Common Council

TO: THE COMMON COUNCIL DATE: November 15, 2010

FROM: DEPARTMENT: Office of Strategic Planning

DIVISION: Real Estate

SUBJECT: Report of Sale  
397 Massachusetts, W Cor. Brayton  
Lot Size: 41' x 105'  
Assessed Valuation: Land \$5,700.00  
Total \$15,000.00

398 Massachusetts, 30.30' SW Winter  
Lot Size: 30' x 105'  
Assessed Valuation: \$4,500.00  
Total \$20,000.00  
(Niagara District)

PRIOR REFERENCE: C.C.P. Item # 5, October 14, 2008

In the above captioned item Your Honorable Body approved PUSH Buffalo on behalf of the Massachusetts Avenue Housing Development Fund Corporation, 271 Grant Street, Buffalo New York 14213 as the designated developer for properties located at 397 and 398 Massachusetts. The property located at 397 Massachusetts is a two family house with 5,098 square feet living area. The property located at 398 Massachusetts is a two family house with 2,160 square feet living area. Both structures are in fair to poor condition.

Massachusetts Avenue Housing Development Fund Corporation has received funding from the Department of Housing and Community Renewal to renovate the houses. The Corporation intends to acquire, renovate both structures and rent to low income families. Total project costs are estimated at Three Hundred Sixty Thousand Dollars, (\$360,000.00).

The Division of Strategic Planning Land Use Planning Committee, Division of Permit and Inspection Services and the Division of Collections have no objections to the sale. There are no building code violations, taxes or other liens owed to the City of Buffalo by the purchaser.

Mr. Stephen Maraszek, Real Estate Appraiser for GAR Associates, Inc. was commissioned by the purchaser to estimate the Fair Market Value of these properties. He has estimated the Fair Market Value of 397 Massachusetts to be Five Thousand Five Hundred Dollars (\$5,500.00) and Two Thousand Five Hundred Dollars (\$2,500.00) for 398 Massachusetts. The City of Buffalo Appraisal Review Board has reviewed the appraisal reports and concurs with the appraiser's estimates of value.

The Corporation has agreed and is prepared to pay Five Thousand Five Hundred Dollars (\$5,500.00) for 397 Massachusetts and Two Thousand Five Hundred Dollars (\$2,500.00) for 398 Massachusetts. The transfer tax and recording fees will be paid by the Corporation.

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Page 2  
Report of Sale - 397 & 398 Massachusetts

I am recommending that Your Honorable Body approve the sale of 397 Massachusetts in the amount of Five Thousand Five Hundred Dollars, (\$5,500.00) and the sale of 398 Massachusetts in the amount of Two Thousand Five Hundred Dollars, (\$2,500.00) to Massachusetts Avenue Housing Development Fund Corporation upon the above terms and conditions. I am further recommending that the Office of Strategic Planning prepare the necessary documents for the transfer of title and that the Mayor be authorized to execute the same.

DEPARTMENT HEAD NAME:

JOHN P. HANNON, JR.

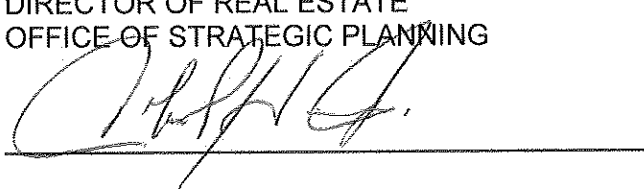
TITLE:

DIRECTOR OF REAL ESTATE  
OFFICE OF STRATEGIC PLANNING

SIGNATURE OF DEPARTMENT HEAD:

JPH:ck

Reportsale397&398massachusetts/real



*That the Common Council hereby approves the sale of 397 Massachusetts in the amount of \$5,500.00 and the sale of 398 Massachusetts in the amount of \$2,500.00 to Massachusetts Avenue Housing Development Fund Corporation upon the above terms and conditions and that the Office of Strategic Planning prepare the necessary documents for the transfer of title and that the Mayor be authorized to execute the same.*

*Passed.*

\* AYE \* NO \*

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FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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#2 (Rev. 1/93) Two Page Communication to the Common Council

TO: THE COMMON COUNCIL DATE: November 9, 2010

FROM: DEPARTMENT: Office of Strategic Planning

DIVISION: Real Estate

SUBJECT: Report of Sale  
777 Seneca, E Cor. Hydraulic  
Lot Size: 30' x 168.93' Triangle  
Assessed Valuation: \$500.00  
(Fillmore District)

The Office of Strategic Planning, Division of Real Estate has received a request from Mr. Howard Zemsky, President of 598 Main Street, LLC, 726 Exchange Street, Buffalo, New York 14210 to purchase 777 Seneca Street. 598 Main Street, LLC intends to acquire this property, use as green space and parking in connection with the construction of an office building on the adjoining parcel at 799 Seneca Street.

The Office of Strategic Planning Land Use Planning Committee, Division of Permit and Inspection Services, Division of Collections, Department of Public Works and the Buffalo Sewer Authority have been contacted and there are no objections to the sale. There are no building code violations, taxes or other liens owed to the City of Buffalo by the purchaser.

598 Main Street, LLC has commissioned Mr. Robert Rubino, appraiser of GAR Associates, Inc., to estimate the Fair Market Value of the subject property. He has estimated the Fair Market Value of 777 Seneca to be One Thousand Nine Hundred Dollars (\$1,900.00). The City of Buffalo Appraisal Review Board has reviewed the appraisal report and concurs with the appraiser's estimate of value.

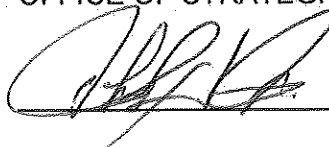
598 Main Street, LLC has agreed and is prepared to pay One Thousand Nine Hundred Dollars (\$1,900.00) for the subject property. They have also agreed to pay for the cost of the transfer tax, recording fees and real estate appraisal. The purchaser will provide a permanent easement in favor of the City of Buffalo Sewer Authority for the existing sewer that encroaches 777 Seneca at the southwest corner of Seneca and Hydraulic Street.

I am recommending that Your Honorable Body approve the sale of 777 Seneca Street to 598 Main Street, LLC in the amount of One Thousand Nine Hundred Dollars (\$1,900.00) upon the above terms and conditions. I am further recommending that the Office of Strategic Planning prepare the necessary documents for the transfer of title and that the Mayor be authorized to execute the same.

DEPARTMENT HEAD NAME:  
TITLE:

JOHN P. HANNON, JR.  
DIRECTOR OF REAL ESTATE  
OFFICE OF STRATEGIC PLANNING

SIGNATURE OF DEPARTMENT HEAD:  
JPH:ck



Mr. Fontana moved:

That the above communication from the Office of Strategic Planning dated November 9, 2010, be received and filed; and

That the offer from Mr. Howard Zensky, President of 598 Main Street, LLC, located at 726 Exchange Street, in the sum of One Thousand and Nine Hundred Dollars (\$1,900.00) for the purchase of 777 Seneca, be and hereby is accepted; and

That the transfer tax, recording fees and cost of legal description shall be paid by the purchaser; and

That the Office of Strategic Planning be authorized to prepare the necessary documents for the transfer of title and that the Mayor be authorized to execute the same, in accordance with the terms of sale upon which the offer was submitted.

Passed.



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\* AYE \* NO \*

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FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

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#1 (Rev. 1/93) One Page Communication to the Common Council

TO: THE COMMON COUNCIL DATE: November 8, 2010

FROM: DEPARTMENT: Office of Strategic Planning

DIVISION: Real Estate

SUBJECT: Rescind Sale & Forfeit Deposit  
66 & 68 Lester Street  
Niagara Ceramics Corporation  
(Lovejoy District)

PRIOR COUNCIL REFERENCE: Item #16, C.C.P. 1/10/06

In the above referenced item Your Honorable Body approved the sale of 66 and 68 Lester to Niagara Ceramics Corporation, 75 Hayes Place, Buffalo, New York 14210.

Several notices have been mailed to Mr. Guy Agostinelli, Attorney at Law for Niagara Ceramics Corporation to finalize the sale and close on the transfer of title. Final notice was sent on September 26, 2008 advising that failure to respond would result in the rescinding of the sale, forfeiture of the Seven Hundred Seventy Dollars (\$770.00) deposit and return of the property to our inventory for future sale.

Therefore, I am recommending that Your Honorable Body approve rescinding the sale of 66 and 68 Lester to Niagara Ceramics Corporation, the deposit be forfeited and the property be returned to our inventory for future sale.

DEPARTMENT HEAD NAME:  
TITLE:

JOHN P. HANNON, JR.  
DIRECTOR OF REAL ESTATE  
OFFICE OF STRATEGIC PLANNING

SIGNATURE OF DEPARTMENT HEAD:

JPH:ck

Rescindforfeitdep66&68lester/forms



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45  
Mr. Fontana moved:

That the communication from the Department of Strategic Planning, dated November 8, 2010, be received and filed; and

That the Executive Director of Strategic Planning be, and he hereby is authorized to rescind the sales of 66 and 68 Lester Street, and the bidder Niagara Ceramics Corporation forfeits their deposit in the amount of Seven Hundred and Seventy Dollars (\$770.00) and to return the property to inventory for future sale.

Passed

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FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

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FROM THE COMPTROLLER

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TO: THE COMMON COUNCIL                      DATE: November 1, 2010

FROM: THE DEPARTMENT OF  
AUDIT & CONTROL

SUBJECT: Cell Block Agreement with  
Erie County

In June of this year, upon calls from both the County Attorney and the City Law Department, my office invoked its right to audit the finances of the Erie County Holding Center pursuant to Section 6(B) of the Agreement dated July 1, 2003; transferring the detention of pre-arraigned arrestees from the City of Buffalo to the County of Erie. After inspecting various records and meeting with County personnel, we have compiled the attached report, which examines the purported costs of operating the Holding Center. The primary purpose of this examination was to determine the appropriate sum that should be paid to the County based on the Agreement.

We found that some of the County's operational costs related to their status as a jail rather than a lock-up did increase, however, those increases cannot, in large measure, be attributable to the City of Buffalo cellblock agreement. The County requirements under the law for the operation of a jail represent "the cost of doing business" and should not be made the responsibility of the City of Buffalo in the absence of a negotiated agreement.

The Report concludes that an Adjustment of 17-18% is a fair settlement of this issue. With this in mind, it would be in the best interests of the City and the County to seek out a long-term solution that meets the satisfaction of both parties to address future operational needs.


If you have any further questions on this matter, please feel free to contact the Department of Audit and Control.

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DEPARTMENT HEAD: Andrew A. SanFilippo

TITLE: Comptroller

SIGNATURE:



REFERRED TO THE COMMITTEE  
ON FINANCE.

10



**Comptroller**  
**ANDREW A. SANFILIPPO**  
*Special Report*

County of Erie & City of Buffalo Cell Block  
Agreement – Pre-Arrest Detainees

DARBY R. FISHKIN, CPA

Deputy Comptroller

DARRYL McPHERSON, Esq.

City Auditor

## INTRODUCTION

On July 1, 2003, the City of Buffalo entered into an Agreement with the County of Erie entitled, "Transferring the detention of pre-arraigned arrestees from the City of Buffalo to the County of Erie" (the "Agreement"). As the name implies, the purpose and intent of the Agreement was to shift the responsibility of detaining individuals arrested within the City, but not yet formally charged in court from the Buffalo Police Department to the Erie County Sheriff's Office. Prior to this Agreement, the City maintained a lock-up facility at Police Headquarters. The County's Holding Center had been detaining pre-arraigned female arrestees since 1983.

Under the idea that consolidation of services would eliminate duplication and promote efficiencies, this Agreement was executed. The initial term was five (5) years, commencing July 1, 2003 and terminating June 30, 2008. It would automatically renew for four (4) additional five year terms, unless a notice of non-renewal was issued. The City agreed to pay the annual sum of \$936,794 in quarterly installments of \$234,198, but that sum would be subject to a negotiated Adjustment upon a Review of the expenses and revenues associated with the Agreement at the end of 2006 and every third calendar year thereafter.

The Review was expected to consider additional capital improvements, increases or decreases in personnel and operating costs, the number of arrestees from the City and the fiscal impact of changes in laws or regulations. The City Comptroller was given the right to audit the finances of the Holding center for the purposes of calculating the appropriate Adjustment. By virtue of that right, this Report has been prepared.

## BACKGROUND

From 2003 through 2009, the City made payment to the County for detention services at the Holding Center for the first term of the Agreement. In May 2009, the City paid \$70,259 as an Adjustment to the cost of services and then made quarterly payments of \$251,763.39, representing a 7.5% increase as allowed pursuant to the contract. Shortly thereafter, the County made a written demand to review the actual costs of the services (Cheryl Green letter of July 31, 2009).

As the County's demand was premature under the Agreement, communication did not commence until further correspondence from the County Attorney on February 4, 2010. At that time, the County sought to review the cost of services, and in the absence of a mutually agreeable resolution, gave notice of its desire to terminate the Agreement. The City, through its Law Department, engaged with the County and set the stage for further discussion. The County forwarded a breakdown of its costs, which they termed as "financial obligations owed by City to County of Erie", totaling \$5,868,573.44. With this figure being far beyond the \$1,007,053.56 annual sum currently being paid by the City, a review seemed all the more prudent.



Invoking the Agreement, the City Comptroller requested documentation to allow this office to review the finances of the Holding Center to aid in a proper determination of the cost of services. The County provided personnel lists with salary information, equipment and capital expenditures report, arrestee data and a Supreme Court ruling regarding jail standards. This was supplemented by a tour of the Holding Center and a meeting with County officials.

## ANALYSIS

The County has advanced the theory that the City must take on all additional incremental costs associated with the operation of the Holding Center because the Agreement with the City caused such a significant increase in the Holding Center population that many additional measures had to be taken.

In a transmittal dated March 2, 2010, the County allocated a number of costs that were never specifically referenced in the original Agreement. Items such as usage of space were calculated on a square foot basis and an allocation of capital expended in connection with the Agreement was made, though without specification as to how it was connected to the City. Full salaries, overtime, employee benefits and other expenses were laid out in total. Though the City was making an annual payment of \$1,007,053.56, the County claimed its expenses were \$6,875,627.00 and that the City owed \$5,868,573.44.

We must note that this claim is erroneous and misleading. Under the terms of the Agreement, particularly Section 6, the Escalation Clause, upon considering the County's expenses, the Review would look at *increases or decreases* in personnel and operating costs. At no point in the Agreement is there any discussion that *actual* costs would be repaid.<sup>1</sup> Therefore, the County's expectation of a significant increase is false and cannot be justified under the contract.

Using the criteria specified in the Agreement as it pertains to the Review, we considered additional capital improvements made by the County to the Detention Facility made necessary by added services to the City of Buffalo since 2007; increases or decreases in personnel and operating costs of the Detention Facility by virtue of added services to the City of Buffalo since 2007; the number of arrestees from the City and other arresting agencies that have been serviced by the Detention Facility on a year to year basis since 2007; and the fiscal impact of changes in laws and regulations in the operation of the Detention Facility since 2007 that may arise due to added services to the City of Buffalo.

## CAPITAL IMPROVEMENTS

Though the County has made a Use of Space claim, there is nothing in the Agreement that calls for payment on that basis. Furthermore, it is not an increase or a capital improvement that can be laid specifically on the City of Buffalo. The County has not provided any documentation or

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<sup>1</sup> While there may be a divergence between the County's actual cost and the amount the City pays to the County, that does not create a legal obligation to pay more money.

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information that would substantiate any infrastructure or capital costs that are solely attributable to the Agreement with the City. As such, no claims for square footage costs should be considered in the negotiation of the Adjusted Annual Payment.

#### PERSONNEL AND OPERATING COSTS

As previously noted, the County's desire for full reimbursement of its total personnel and operating costs is not appropriate under the Agreement. When considering the proper allocation of expenses, the comparison should be looking at a year to year increase (or decrease) based on what was paid during the previous term of the Agreement.

We obtained payroll data from the County's SAP financial system for a sample of employees for the period 2007 – 2009, confirming the hours, salary and overtime without exception. We reviewed the increase in personnel costs from 2007 – 2009, noting an 18% increase. We also reviewed the increase in meal and other operating expenses, noting a .46% decrease, as well as transportation expenses, noting a 3% increase.

For purposes of the Escalation Clause, therefore, we consider a 17 - 18% increase to be a reasonable adjustment level to apply to the payment due to the County.

YEAR	City Allocation of Total Costs (1)	% Increase	City Allocation of Total Personnel Costs (2)	% Increase	% Increase in Meal and Other Expenses (3)	% Increase in Transportation Costs (4)
2007	\$ 4,227,093.59	0.16%	\$4,074,251.24	0.18%	(3%)	9%
2008	\$ 4,646,137.55	9.91%	\$4,483,130.44	10.04%	1%	21%
2009	\$ 6,005,412.16	29.26%	\$4,788,328.79	7.28%	(2%)	(15%)
Increase '07 – '09				18.05%	(.46%)	3.09%

1. This represents the City's portion of the total costs based on the proportion of inmates from the City to the total.
2. This represents the City's portion of the total personnel costs based on the proportion of the inmates from the City to the total.
3. This represents the increase in meal and other expenses such as printing, copying, laundry, etc.
4. This represents transportation costs; the increase represents the increase in IRS mileage rates.

## NUMBER OF ARRESTEES

It seems that the number of arrestees taken in by the City of Buffalo falls above 14,000 annually since 2007. As that remains a fairly consistent figure, there would not be grounds to base a major change in the compensation formula in the negotiations.

## CHANGE IN LAW OR REGULATION

On March 8, 2010, Supreme Court Justice Diane Y. Devlin affirmed a New York State Commission of Corrections directive that requires Erie County to provide various "jail standard" items for pre-arraignees. It has been posited that the volume of pre-arraignees is a direct result of the Agreement with the City of Buffalo, so the City should bear that entire cost.

The County disagrees with the assessment by the Commission of Corrections that the Erie County Holding Center is a "jail" as it relates to pre-arraignees. They maintain they are a "lock-up", which has a lower standard and does not require the provision of various amenities, such as toiletries and bedding. Notwithstanding this position, a State Supreme Court found that the Erie County Sheriff was not in compliance with the statutory standard and has required the County to follow the directive of the Commission of Corrections. The County thusly feels this represents an increased cost by virtue of a change in law or regulation.

We would disagree in the first instance that this represents a change in law or regulation. The legal standard that the County is required to uphold was in existence well before the 2003 Agreement with the City. The failure to comply with the legal standard (and subsequently being Court-ordered to follow it) is not a change in law or regulation. It is a change in management policy.

Justice Devlin's decision makes it clear that the Holding Center was a jail regardless of the arraignment status of the individuals being held there. The Corrections law was amended in 2002 to allow jails to hold pre-arraignees. The Commission of Corrections informed the County in 2004 that they were required to operate under the "jail" standard, which was during the initial term of the City-County Agreement. The County's failure to enforce the standard speaks more to a lack of managerial effectiveness than it does the City's obligation under the Agreement. The Holding Center would still be a jail, regardless of whether or not the City-County Agreement continued.

Since this action does not relate to any actual change in law or regulation, but rather the manner in which the County operates the Holding Center, that factor itself cannot be considered as an increase for purposes of calculating the adjusted payment.<sup>2</sup> However, since the number of items being supplied to City pre-arraignees has increased since the last Adjustment, there should be

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<sup>2</sup> The County has stated that they are appealing the ruling of Justice Devlin. Nonetheless, we must approach this matter as it exists now, not from a potential outcome sought by the County.

at  
some consideration of the increase in incremental cost as an operating expense. This consideration is accounted for within the 17-18% adjustment factor discussed above.

#### ADDITIONAL ITEMS

From its March 2, 2010 transmittal, the County attached a list of "Additional Items of Importance" which itemized a number of costs that they expected the City to reimburse or otherwise cover. In fairness to the County, some of the items may be characterized as operating expenses; these again are accounted for within the 17-18% adjustment factor previously discussed. Others could be seen as general Holding Center expenses that are not covered under the Agreement. These items should be the subject of negotiations between the City and County and should not be held out as obligations under the current contract.<sup>3</sup>

#### CONCLUSION

It cannot be questioned that the County has taken on a great deal of additional cost by virtue of the contract with the City. However, this fact had to have been anticipated to some degree when the Agreement was initially executed. The tenets of the Agreement have not fallen to the advantage of the County, which may become grounds for serious re-negotiation if the Agreement is to continue beyond its present term. As it stands currently, the parties can only look to the strict language of the contract for guidance on how to proceed. The Agreement provides the appropriate standard of Review.

In the absence of an agreed-upon Adjustment, pursuant to Section 6 (C) of the Agreement, the Annual Payment will increase by the lesser of the 7.5 % or the cumulative increase in the Buffalo Area Consumer Price Index (CPI).<sup>4</sup> The average cumulative change in CPI between 2007 to 2009 is 6.9%, which is clearly the lesser of the two.

The City finds that in the interests of fairness, 17-18% is the proper Adjustment to apply to the Agreement.

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<sup>3</sup> The County's tendency to make declarative statements about what is owed by the City falls short of creating a legal obligation under the terms of the contract.

<sup>4</sup> As reported by the United States Department of Labor, Bureau of Labor Statistics, using the changes as indexed between 2007-2009 for Northeast cities in the population size class of 50,000 – 1,500,000.

5

FROM THE COMMISSIONER OF PUBLIC WORKS, PARKS AND STREETS

November 16, 2010

#1 (Rev. 1/93) SINGLE PAGE COMMUNICATION TO THE COMMON COUNCIL

TO: THE COMMON COUNCIL

DATE: November 8, 2010

FROM: DEPARTMENT: Public Works, Parks & Streets  
DIVISION: BuildingsSUBJECT: [: Change in Contract  
[: City Court  
[: 2007 Renovation  
[: Job #0704  
[: Ellicott DistrictPRIOR COUNCIL REFERENCE: (IF ANY) [:  
EX. (ITEM NO. CCP )

TEXT:

I hereby submit to Your Honorable Body the following change for City Court, 2007 Renovation, Barton, Hovey, Nardini &amp; Tries, Consulting Contract, C #92011240.

1. Credit for inspector.

Deduct \$ 18,320.00

The foregoing change results in a net decrease in the contract of Eighteen Thousand Three Hundred Twenty and 00/100 Dollars (-\$18,320.00).

Summary:	Original Contract Amount	\$ 45,100.00
	Amount of Previous Change Order	Add \$ 55,135.00
	Amount of This Change Order (#2)	Deduct \$ 18,320.00
	Revised Contract Amount	\$ 81,915.00

Costs have been reviewed by the Department of Public Works, Parks &amp; Streets and were found to be fair and equitable. Funds for this work are to be credited to 39320806 445100 - Buildings.

SJS/PJM/DDC/dlg

cc: Comptroller

J. Schollard, Director of Bldgs.  
Buildings

Department Head Name: Peter Merlo, P.E.

Title: City Engineer

For: Commissioner of Public Works, Parks &amp; Streets

Signature of Department Head: 

57  
Mr. Fontana moved:

That the above communication from the Commissioner of Public Works, Parks and Streets dated November 8, 2010, be received and filed; and

That the Commissioner of Public Works, Parks and Streets be, and he hereby is authorized to issue change order No. 2, to Barton, Hovey, Nardini & Tries, a decrease in the amount of \$18,320.00, as more fully described in the above communication, for work relating to City Court, 2007 Renovation, Job No. #0704, Consulting Contract, C #92011240. Funds for this project are to be credited to 39320806 445100 - Buildings.

Passed

TAB:rmv

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

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#1 (Rev. 1/93)

SINGLE PAGE COMMUNICATION TO THE COMMON COUNCIL *SM*

TO: THE COMMON COUNCIL

DATE: October 28, 2010

FROM:

DEPARTMENT: Public Works, Parks & Streets

DIVISION: Engineering

SUBJECT: Permission to Modify Agreement w/NYSDOT  
Provide Matching Funds for the South Park Avenue Lift Bridge  
Project, PIN #5755.72

PRIOR COUNCIL REFERENCE: No. 37 of C.C.P. 12/26/02

The City of Buffalo entered into an agreement with the New York State Department of Transportation to reconstruct the South Park Avenue Lift Bridge per the aforementioned resolution. The initial agreement for this project was for \$8.023 million dollars. During construction, change orders were authorized to the project thereby increasing the total cost of the project to \$9,747,021.00.

I am hereby requesting Your Honorable Body's permission to enter a supplemental agreement with the New York State Department of Transportation for \$9,747,021.00, the final project cost. This supplemental agreement is necessary so that the City can obtain its federal and state reimbursement, which totals \$1,638,086. 55, for the additional project costs.

PJM/DJP/dab

Cc: Steven J. Stepniak, Commissioner

TYPE DEPARTMENT HEAD NAME:

Peter J. Merlo, P.E.

TYPE TITLE:

City Engineer

SIGNATURE OF DEPARTMENT HEAD:

*h*

*12*

60

Mr. Fontana moved:

That the above communication from the Commissioner of Public Works, Parks and Streets dated October 28, 2010 be received and filed; and

That the Commissioner of Public Works, Parks & Streets be, and he hereby is authorized to enter into a supplemental agreement with the New York State Department of Transportation for \$9,747,021.00 for the South Park Avenue Lift Bridge Project, PIN #5755.72 for which the City will be reimbursed an additional \$1,638,086.55 in state and federal funds.

Passed.

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

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TO: THE COMMON COUNCIL

DATE: November 9<sup>th</sup>, 2010

FROM: DEPARTMENT: Public Works, Parks &amp; Streets

DIVISION: Engineering

SUBJECT:                   [: Report of Bids  
                                  [: Main Place Mall Parking Ramp  
                                  [: Franklin Street Access Tunnel – 2010, Re-bid  
                                  [: Group #721-A

PRIOR COUNCIL REFERENCE: (IF ANY)                   [:

In obtaining these bids for the above mentioned project, I have asked for unit price covering the various items of work and material which will be performed. The final cost of the work will be based on the actual measured quantities of materials entering into the work and may be either more or less than the total bid.

The following bids were received:

	Base Bid	Unit Price Increase
<i>C. Nichter Construction</i> 30 Wildwood Drive, Lancaster, NY 14086	\$83,200.07* <i>Corrected Tabulation</i> <i>(Rescinded Bid – 10/07/10)</i>	
North America Construction Co., Inc. 1417 Alleghany Road, Attica, NY 14011-9550	\$192,710.00	\$211,981.00
Trason Development Corporation	\$196,625.00	\$216,287.50
Pinto Construction Services 1 Babcock Street, Buffalo, NY 14210	\$249,995.00	\$274,994.50
L.P. Ciminelli Construction Corporation 369 Franklin Street, Buffalo, NY 14202-1725	\$268,966.00	\$295,862.60

\*Adjusted Amount

I hereby certify that the low bidder for the above project is North America Construction Co., Inc..

I respectfully recommend that your Honorable Body authorize a contract award in the amount of \$211,981.00 (\$192,710.00 + \$19,271.00 unit price increase = \$211,981.00). Funds for this work will be available in an account(s) to be named at a later date from Parking.

The engineer's estimate for this work is \$207,560.00.

The attached is certified to be a true and correct statement of the bid received. Under provisions of the General Municipal Law, any of the bidders may withdraw his bid if an award of the contract is not made by November 21<sup>st</sup>, 2010. Individual bid submissions are available in our office for inspection and copies are available upon request.


SJS:PJM:MJZ:llf  
 Attach. (4)

cc: Bill Heinhold

TYPE DEPARTMENT HEAD NAME: Peter J. Merlo, P.E.

TYPE TITLE: City Engineer of Public Works, Parks &amp; Streets

SIGNATURE OF DEPARTMENT HEAD:



13



## DiDonato Associates, P.E, P.C.

October 6, 2010

City of Buffalo  
Department of Public Works  
City Hall, Room 501  
65 Niagara Square  
Buffalo, NY 14202

**Attn:** Mike Zera – Project Manager

**Re: BID TABULATION**  
Main Place Mall Parking Ramp  
Franklin Street Entrance Rehabilitation, 2010  
Rebid – Group #721A

Dear Mr. Zera:

Enclosed please find the tabulated bid-sheets for the above referenced project. Math errors were found in the bid tab for C. Nichter Construction. Mr. Nichter was informed of the Discrepancy and has requested to retract his bid at this time. This has been reviewed and approved by your department. No other errors or discrepancies were found in the remaining four bids from the following contractors:

CONTRACTOR	BID AMOUNT
C. NICHTER CONSTRUCTION (Bid Retracted)	Corrected \$83,200.07 (Original \$183,200.00)
<b>NORTH AMERICA CONSTRUCTION CO., INC.</b>	<b>\$192,710.00</b>
TRASON DEVELOPMENT CORPORATION	\$196,625.00
PINTO CONSTRUCTION SERVICES	\$249,995.00
LP CIMINELLI CONSTRUCTION CORPORATION	\$268,966.00

The Engineers Estimate for the project was \$207,560, three bids were below the engineers estimate and two bids were above the engineers estimate.

We have interviewed Mr. Salvatore Collana of North America Construction Company, Inc. and he is satisfied with his bid proposal and fully understands the scope of work and has included all work in his bid proposal. In discussing the bid proposal with Mr. Collana, he indicated that North America Construction Company, Inc. is satisfied with the prices bid for the contract items.

North America Construction Company, Inc. has previously performed work for the City of Buffalo. Discussions with your office and DiDonato's past experience working with North America Construction Company, Inc. indicate that the work has generally been acceptable.



## DiDonato Associates, P.E., P.C.

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October 6, 2010

Re: **BID TABULATION**  
Main Place Mall Parking Ramp  
Franklin Street Entrance Rehabilitation, 2010  
Rebid - Group #721A

Page 2 of 2

As such, based on discussions with the City of Buffalo Department of Public Works and a review of the Bid Proposals, it is DiDonato Associates recommendation that the City of Buffalo accept North America Construction Company, Inc. as the low bidder with a bid of \$192,710.

If you have any questions or need additional information in the interim, please don't hesitate to contact me at this office.

Very truly yours,  
**DiDonato Associates**  
**Engineering & Architecture P.C.**

  
Jeffrey J. Blank, P.E.  
Sr. Project Engineer

Encl: Bid tabulation for the above referenced project

cc: William, Witnauer, Executive Director, Buffalo Civic Auto Ramps  
Kevin Helfer, Chairman, City of Buffalo Board of Parking  
John DiDonato, P.E., DiDonato Associates  
Jim Frick, P.E., DiDonato Associates

City of Buffalo  
Department of Public Works, Parks and Streets  
Main Place Mall Parking Ramp  
Franklin Street Access Tunnel Rebid  
Group #721A  
Bid Tabulation

Item No.	Description	Units	Quantity	Engineers Estimate		C. Nichter Construction*		Apparent Low Bidder North America Construction Company, Inc.		Trason Development Corporation		Pinto Construction Services		LP Cimilneill Construction Corp.	
				Unit Bid Price	Cost	Unit Bid Price	Cost	Unit Bid Price	Cost	Unit Bid Price	Cost	Unit Bid Price	Cost	Unit Bid Price	Cost
1	Removal of and Replacement of Existing Concrete Slab	SF	840	165	\$155,100	\$19.57	\$16,386	\$185.00	\$173,900	\$145.00	\$136,300	\$200.00	\$188,000	\$173.00	\$162,620
2	Partial Depth Concrete Repair	SF	27	200	\$5,400.00	\$111.11	\$3,000	\$150.00	\$4,050.00	\$180.00	\$4,860.00	\$260.00	\$7,020.00	\$253.00	\$6,831.00
3	Installation of New 3" PVC Piping	LF	15	40	\$600.00	\$253.33	\$3,800	\$50.00	\$750.00	\$130.00	\$1,950.00	\$202.00	\$3,030.00	\$47.00	\$705.00
4	Installation of New 1-1/2" PVC Piping	LF	30	30	\$900.00	\$66.66	\$2,000	\$50.00	\$1,500.00	\$40.00	\$1,200.00	\$101.00	\$3,030.00	\$30.00	\$900.00
5	Installation of New Pump and Associated Electrical Systems	LS	1	13,500	\$13,500.00	\$14,000.00	\$14,000	\$3,000.00	\$3,000.00	\$18,000.00	\$18,000.00	\$14,600.00	\$14,600.00	\$32,025.00	\$32,025.00
6	New Vehicular Traffic Coating System	SF	2,255	12	\$27,060.00	\$16.41	\$37,005	\$2.00	\$4,510.00	\$13.00	\$29,315.00	\$13.00	\$29,315.00	\$27.00	\$60,885.00
95-500	Miscellaneous Construction Allowance	LS	1	5,000	\$5,000.00	\$5,000.00	\$5,000	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
Total Bid:					\$207,560.00		\$63,200.97		\$192,710.00		\$196,625.00		\$249,956.00		\$268,966.00

\*Discrepancies Found  
C. Nichter - Item No. 1 Unit Bid Price shown as \$19.37 in both words and numbers on page BT-1. Total bid price was adjusted accordingly. Bid Retracted.

65

FOR: GROUP # 721A { REPORT OF BIDS  
66

Zera, Mike

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**From:** Jeff Blank [jblank@didonato.cc]  
**Sent:** Wednesday, October 06, 2010 4:45 PM  
**To:** Zera, Mike  
**Cc:** wwitnauer@bcarparking.com; 'John DiDonato'; 'James A. Frick, P.E.'; Kevin J. Helfer  
**Subject:** Main Place Mall Parking garage, Franklin Street Entrance Ramp Rehabilitation, 2010 rebbid, Group#721A  
**Attachments:** Group721A-BidAcceptanceLetter-10062010.pdf; MainPlace-Group721a-BidTab-Rebid-10062010.pdf

Mike,

Attached is a copy of the Bid Tab sheet and The Bid recommendation letter for the Main Street Mall Parking garage, Franklin Street Entrance Ramp Rehabilitation Rebid from this morning. Please review and let me know if everything looks OK. I am also mailing you a hard copy. Thanks.

Jeffrey J. Blank, P.E.  
DiDonato Associates, P.E., P.C.  
689 Main Street  
Buffalo, New York 14203  
716.656.1900 fax: 716.656.1987 mobile: 716.361.9522 [www.didonato.cc](http://www.didonato.cc)



67

Mr. Fontana moved:

That the above communication from the Commissioner of Public Works, Parks and Streets dated November 9, 2010, be received and filed; and

That the Commissioner of Public Works, Parks and Streets, be, and he hereby is authorized to award a contract for the Main Place Mall Parking Ramp, Franklin Street Access Tunnel – 2010, Re-bid, to North America Construction Co., Inc., the lowest responsible bidder, in the amount of \$211,981.00 (\$192,710.00 + \$19,271.00 unit price increase = \$211,981.00). Funds for the project are available in an account(s) to be named at a later date from Parking.

Passed.

68

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

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69

#1 (Rev. 1/93)

SINGLE PAGE COMMUNICATION TO THE COMMON COUNCIL

TO: THE COMMON COUNCIL

DATE: November 8, 2010

FROM: DEPARTMENT: Public Works, Parks & Streets  
DIVISION: EngineeringSUBJECT: [: Report of Bids  
[: Repair of Streetlight Foundations and Knockdowns Citywide IX  
[: Group #730

PRIOR COUNCIL REFERENCE: (IF ANY) [:

This is to advise Your Honorable Body that I have advertised and received bids on October 20, 2010

The following bids were received:

<u>Contractor</u>	<u>Base Bid</u>	<u>Total Bid Price</u>
South Buffalo Electric, Inc. 1250 Broadway St. Buffalo, NY 14212	\$236,860.00**	\$248,703.00
O'Connell Electric 830 Phillips Rd. Victor, NY 14564	\$462,235.00	\$485,346.75

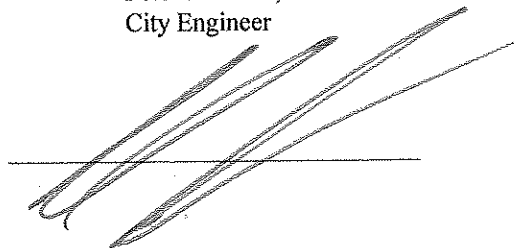
I hereby certify that the lowest responsible bidder for the above project is South Buffalo Electric, Inc. and I respectfully recommend that Your Honorable Body authorize a contract award to South Buffalo Electric, Inc. in the amount of \$248,703.00. (Base Bid of \$236,860.00 + [5% unit price increases] \$11,843.00 equals [Total Award] \$248,703.00). Funds for this project are available in accounts #13116006-443100. The engineer's estimate for this work is \$300,000.00.

\*\*Corrected Base Bid

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PJM/MGM/kem

cc: Steven J. Stepniak, Commissioner of Public Works, Parks &amp; Streets

TYPE DEPARTMENT HEAD NAME:  
TYPE TITLE:Peter J. Merlo, P.E.  
City EngineerSIGNATURE OF DEPARTMENT HEAD:

14

70

Mr. Fontana moved:

That the above communication from the Commissioner of Public Works, Parks and Streets dated November 8 2010, be received and filed; and

That the Commissioner of Public Works, Parks and Streets, be, and he hereby is authorized to award a contract for Repair of Streetlight Foundations and Knockdowns Citywide IX, Group #730, to South Buffalo Electric, Inc., the lowest responsible bidder, in the amount of \$248,703.00 (Base Bid \$236,860.00 + [5% unit price increases] \$11,843.00 equals [Total Award] \$248,703.00). Funds for the project are available in account #13116006-443100.

Passed.

71

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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## POSITION ALLOCATION MAINTENANCE FORM

Title APPT. Machine Operator  
 Department/Division Public Works, Parks & Streets, Division of Engineering  
 Start Date 11/4/10  
 Original PR No. 2008-005 OCT28'10 15:10 368BCSC  
 Title Code No. 7090  
 Salary \$33,452 (Step 3)  
 Budget Function No. 13191001-411001

Reason for appointment (check one) ☒ Status Change ☐ Reinstatement ☐ Replacement ☐ Extension

Type of Status Change (check one)

- ☐ From Temporary to Provisional  
☐ From Temporary to Permanent  
☒ From Provisional to Permanent  
☐ From Contingent Permanent to Permanent  
☐ Other

Type of Appointment:Classification

- ☒ Permanent  
☐ Contingent Permanent  
☐ Provisional  
☐ Temporary  
☐ Seasonal

- ☐ Exempt  
☐ Competitive  
☐ Non-Competitive

REFERRED TO THE COMMITTEE  
ON CIVIL SERVICE.

Comments: \_\_\_\_\_

Employee Information:

Name	Steven Rusinek	SS#	2412
Address	431 Huntington Ave. Apt. 4	DOB	
City	Buffalo	State	New York
		Zip Code	14214

<i>William Heimold</i> Signature of Appointing Authority	10/19/10 Date
<i>Dana Coste</i> Signature of Director of Budget	10/19/10 Date
<i>Cleora A. Heato</i> Signature of Adm. Director of Civil Service	10/29/10 Date

Send original copy signed by Dept. Head to Budget

Send or e-mail Civil Service a copy

When approved copy is returned, send a copy to Audit along with file maintenance form, City Clerk and Budget

CR  
73**Certificate of Appointment**

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective:

11/1/10

in the Department of

Public Works

Division of

Parks

to the Position of

Park Utility Worker

Permanent, Provisional, Temporary, Seasonal (Insert one)

PROVISIONAL

Appointment, Promotion, Non-Competitive (Insert one)

APPOINTMENT

Minimum, Intermediate, Maximum, Flat (Insert one)

THIRD STEP

(Enter Starting Salary) : Starting Salary of:

\$25,100

LAST JOB TITLE **Street Repair Worker**LAST DEPARTMENT **DPW**DATE **10/10**LAST SALARY **23,477**

NAME

**Gregory Leonard**

ADDRESS

**149 Cushing Place**

CITY &amp; ZIP

**Buffalo, NY 14220**LAST 4 DIGITS OF SSN. **XXX-XX-8476**

LAST JOB TITLE

LAST DEPARTMENT

DATE

LAST SALARY

NAME

ADDRESS

CITY &amp; ZIP

LAST 4 DIGITS OF SSN. **XXX-XX-**

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE

**14160001**

TITLE CODE NO

**9200**

BUDGET ACCT. OBJ.

**411001** PROJ. ID

PERSONNEL REQ. NO

**2010-60**

SALARY RANGE OF POSITION

**\$23,169-\$38,615**

PER YEAR DAY HOUR

**YEAR**

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY:

**Steven J. Stepniak**

TITLE OF APPOINTING AUTHORITY:

**Commissioner**

DATE:

**10/25/10**

SIGNATURE OF APPOINTING AUTHORITY:

*William R. Heindl*

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)

OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET

#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

16

FROM THE COMMISSIONER OF POLICE

November 16, 2010



SINGLE PAGE COMMUNICATION TO THE COMMON COUNCIL

TO: THE COMMON COUNCIL: DATE: October 27, 2010

FROM: DEPARTMENT: POLICE

DIVISION: \_\_\_\_\_

SUBJECT: | : Request Transfer of City Owned Property  
| :  
| :

PRIOR COUNCIL REFERENCE: (IF ANY) | :

Ex. (Item No. xxx, C.C.P. xx/xx/xx)

TEXT: (TYPE SINGLE SPACE BELOW)

The Buffalo Police Department is requesting approval from your Honorable Body to transfer Departmental property, namely K-9 dog "Garro" to his handler Police Officer Michelle Chmura. Due to the K-9's age and health, it has been determined that the dog is no longer able to fulfill the requirements of a Buffalo Police K-9 Corp dog.

The K-9 is presently assigned to Officer Chmura, is presently in her custody, and has been assigned to her since 2004. Per the attached document, Officer Chmura will maintain full responsibility for Garro.

\_\_\_\_\_  
DD/jws

TYPE DEPARTMENT HEAD NAME: DANIEL DERENDA

TYPE TITLE: COMMISSIONER OF POLICE

SIGNATURE OF DEPARTMENT HEAD: 

# CITY OF BUFFALO - DEPARTMENT OF POLICE

## DONATION / ACCEPTANCE OF K-9 DOG

I, Michelle Chmura of 55063 Bradley Ln, Hamburg NY  
(Print Name) (Address)

accept, one dog, German Shepard, 6yo, black and brown colors,  
(donate or accept) (name; description by breed(s) or markings)

Which has been used ~~or will be used~~ as a K-9 dog, 2004-2010 the City of Buffalo, New York, in  
(for or from)

accordance with the following terms:

(Circle applicable Term 1 or 2)

1. Accepting K-9 animal from City of Buffalo: I hereby agree to hold the City of Buffalo harmless from any and all liability that may arise during or as a result of my ownership of the above-described K-9 dog, including, but not limited to, any liability that may arise from claims based on a failure to warn, injury to self or third parties, workers compensation or General Municipal Law § 207-c benefits. I further agree that I will be responsible for any and all medical or other expenses for the animal. These obligations shall take effect as of the effective date of this Agreement described below.

OR

2. Donating an animal to the City of Buffalo for K-9 duty: The City of Buffalo hereby agrees that, if the described dog proves unsuitable for Buffalo Police Department K-9 Corps service, or if the dog is not needed for such purpose, the donor shall have first right of refusal to ownership of the animal at no cost to the donor, provided the donor shall agree to the conditions set forth in Term 1 above. The City further agrees to accept all liability for the dog as of the effective date of this Agreement described below.

The effective date of this Agreement shall be the date of the signature of the Commissioner of Police to this Agreement accepting the donation of the dog on behalf of the City of Buffalo, or of the resolution by the Common Council approving transfer of ownership of the dog from the City of Buffalo to the donor or a third party, whichever is applicable.

Michelle Chmura  
Signature of Donor / Person Accepting Dog

Date: 10-9-10

[Signature]  
Commissioner of Police

Date: 10/13/10

Original - BPD Budget Office  
Copy - Donor / Acceptor  
Copy - File

For Office Use:

Effective Date: \_\_\_\_\_

CCR# (if applicable): \_\_\_\_\_

77

Mr. Fontana moved:

That the above communication from the Commissioner of Police dated October 27, 2010, be received and filed; and

That the Common Council approve the transfer of namely K-9 dog "Garo" to his handler Police Officer Michelle Chmura, who will maintain full responsibility for "Garo".

Passed.

TAB:rmv

t:\wp60\msword\rmv\17c11-16a.doc

78

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

Maj - 5  
2/3 - 6  
3/4 - 7

\* \* \*  
\* 9 \* \*  
\* \* \*  
\* \* \*

FROM THE COMMISSIONER OF FIRE

SINGLE PAGE COMMUNICATION TO THE COMMON COUNCIL

TO: THE COMMON COUNCIL:  
DATE: October 28, 2010

FROM: DEPARTMENT: 21 - FIRE DEPARTMENT

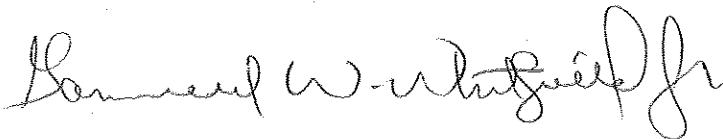
SUBJECT: [: Breathing Air Supply Vehicle  
[:  
[:  
[:

PRIOR COUNCIL REFERENCE: (IF ANY)  
Ex. (Item No. xxx, C.C.P. xx/xx/xx)

Please be advised that the above-referenced vehicle is needed to ensure our ability to respond to multiple emergencies within our community. We currently have only one breathing air supply unit which greatly compromises our ability to supply breathing air to our members during simultaneous emergencies. It should further be noted that this vehicle will allow us to have redundancy in the event of an accident, mechanical failure or required maintenance of one of the vehicles.

This vehicle is being assembled at a savings of \$100,000.00 as we are only purchasing the cab/chassis/box new. The entire breathing air supply system that will be housed in this vehicle was cannibalized from a previous vehicle and will be installed upon delivery.

Lastly, this vehicle will replace #F-156, a 1994 Chevy breathing air truck.



**SIGNATURE**

**DEPARTMENT HEAD TITLE : Garnell W. Whitfield, Jr., Commissioner of Fire**

**GWW/sa**

81

Mr. Fontana moved:

That the above communication from the Commissioner of Fire dated October 28, 2010, be received and filed; and

That the Commissioner of Fire and the Director of Purchase be, and they hereby are authorized to purchase a cab/chassis/box new to be added to a breathing air truck and replacing vehicle #F-156, a 1994 Chevy breathing air truck.

Passed.

82

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

\* \* \*  
\* a \*  
\* \* \*  
\* \* \*

Maj - 5  
2/3 - 6  
3/4 - 7



FROM THE CORPORATION COUNSEL

November 16, 2010

## MULTIPLE PAGE COMMUNICATION TO THE COMMON COUNCIL

TO: THE COMMON COUNCIL

DATE: 11-10-10FROM: DEPARTMENT: LAW


SUBJECT: (: Agreement with Kleinhans's Music Hall Management, Inc.

PRIOR COUNCIL REFERENCE: (IF ANY) (: None.

Ex. Item No. xxx.C.C.P.xx/xx/xxTEXT: (TYPE SINGLE SPACE BELOW)

Attached please find a proposed exercise of the City's option with Kleinhans Music Hall Management, Inc. to continue management of Kleinhans Music Hall for the period of July 1, 2010 through July 1, 2011. The conditions of the agreement between the City of Buffalo and Kleinhans Music Hall Management, Inc. entered Septemebr 1, 2009, shall continue as authorized therein.

Thank you for your prompt attention to this matter.

TYPE DEPARTMENT HEAD NAME: DAVID RODRIGUEZTYPE TITLE: ACTING CORPORATION COUNSELSIGNATURE OF DEPARTMENT HEAD:

REFERRED TO THE COMMITTEE  
ON FINANCE.

P 10

18 A

R7

ed

**AGREEMENT BETWEEN THE CITY OF BUFFALO AND**  
**KLEINHANS MUSIC HALL MANAGEMENT, INC.**

**AGREEMENT TO RENEW**

Pursuant to the Agreement made as of the 1<sup>st</sup> day of September, 2009 by and between the CITY OF BUFFALO, New York, a municipal corporation of the State of New York, with its principal place of business at City Hall, 65 Niagara Square, Buffalo, New York 14202, hereinafter referred to as the "City", and KLEINHANS MUSIC HALL MANAGEMENT, INC., a New York not-for-profit corporation, having its office and principal place of business at 371 Pennsylvania Avenue, Buffalo, New York 14201, hereinafter referred to as "Manager".

The parties agree to extend the existing agreement for an additional year, for the period of July 1, 2010 through June 30, 2011.

IN WITNESS WHEREOF, the parties have set their hands and seals as of the day and year first above written.

CITY OF BUFFALO, NEW YORK

APPROVED AS TO FORM ONLY

By: \_\_\_\_\_  
Byron W. Brown, Mayor

By: \_\_\_\_\_  
Corporation Counsel

KLEINHANS MUSIC HALL  
MANAGEMENT, INC.

By: \_\_\_\_\_  
Assistant Corporation Counsel

By: \_\_\_\_\_  
Catherine Schweitzer, Chair

85

FROM THE COMMISSIONER OF ECONOMIC DEVELOPMENT AND PERMIT &  
INSPECTION SERVICES

November 16, 2010

To: The Common Council:

Date: November 10, 2010

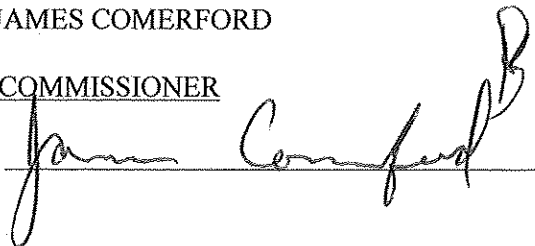
From: Department Permit & Inspection ServicesDivision: Office of LicensesSubject: [: Food Store (New)  
[: 901 Niagara (Niagara)| Type in Upper and |  
| Lower Case Only |[:  
[:

Prior Council Reference: (If Any) [:

Ext. (Item No. xxx, C.C.P. xx/xx/xx):

Text (Type Single Space Below):

Pursuant to Chapter 194 of the City of Buffalo Ordinances, please be advised that I have examined the attached application for a Food Store License located at **901 Niagara (ALHANNAH FOOD/BADR ALQATANI)** and find that as to form is correct. I have caused an investigation into the premises for which said application for a food store license is being sought and according to the attached reports from the Zoning Office, Fire Department, Building Inspections, Police Department and Collection Office I find it complies with all regulations and other applicable laws. This request is submitted for your approval or whatever action you deem appropriate.

Type Department Head Name: JAMES COMERFORDType Title: COMMISSIONERSignature of Department Head:

JC:PS:rf



CITY OF BUFFALO  
OFFICE OF LICENSES

301 CITY HALL  
BUFFALO, NEW YORK 14202

INSPECTION/APPROVAL REQUEST

AGENCY / DEPARTMENT: OFF. OF ZONING & USE

REFERRED TO: KEVIN FITZGERALD

APPLICATION FOR: ALHANNAH FOOD

LICENSE TYPE: FOOD STORE

NEW LICENSE 2011

BUSINESS ADDRESS: 901 NIAGARA  
BUSINESS PHONE: (716) 883-4806  
COUNCIL DISTRICT: NI  
POLICE DISTRICT:  
APPLICANT NAME: BADR ALQATANI  
APPL. PHONE: () -  
APPLICATION NUMBER: 559681  
REFERRAL DATE:

REMARKS:

DISAPPROVAL REASON:

(TO BE COMPLETED BY AGENCY/DEPARTMENT REFERRED TO)

APPROVED

DATE: 9-15-10

DISAPPROVED

DATE:

DISAPPROVAL  
CALL BACK

DATE:

\*\*\*REASON FOR DISAPPROVAL MUST BE STATED BELOW\*\*\*

REMARKS:

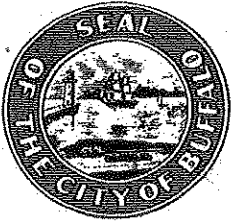
INSPECTOR

RM#

EXT

304 5407

AFTER INSPECTION PLEASE COMPLETE AND RETURN THIS  
REFERRAL OF THE OFFICE OF LICENSES. THANK YOU.



CITY OF BUFFALO  
OFFICE OF LICENSES

301 CITY HALL  
BUFFALO, NEW YORK 14202

INSPECTION/APPROVAL REQUEST

AGENCY / DEPARTMENT: FIRE PREVENTION

REFERRED TO: LT. POCZKALSKI

APPLICATION FOR: ALHANNAH FOOD

LICENSE TYPE: FOOD STORE

NEW LICENSE 2011

BUSINESS ADDRESS: 901 NIAGARA

BUSINESS PHONE: (716) 883-4806

COUNCIL DISTRICT: NI

POLICE DISTRICT:

APPLICANT NAME: BADR ALQATANI

APPL. PHONE: () -

APPLICATION NUMBER: 559681

REFERRAL DATE: 08/31/2010

REMARKS: 1ST REQUEST 8/31/2010  
2ND REQUEST 10/13/2010

DISAPPROVAL REASON:

(TO BE COMPLETED BY AGENCY/DEPARTMENT REFERRED TO)

APPROVED

DATE: 11-5-10

DISAPPROVED

DATE:

DISAPPROVAL  
CALL BACK

DATE:

\*\*\*REASON FOR DISAPPROVAL MUST BE STATED BELOW\*\*\*

REMARKS:

INSPECTOR Et Z. Al-Qatani RM# EXT

AFTER INSPECTION PLEASE COMPLETE AND RETURN THIS  
REFERRAL OF THE OFFICE OF LICENSES. THANK YOU.

AppSlip2.rpt



CITY OF BUFFALO  
OFFICE OF LICENSES

301 CITY HALL  
BUFFALO, NEW YORK 14202

88A

INSPECTION/APPROVAL REQUEST

AGENCY / DEPARTMENT: HOUSING PROPERTY INS

REFERRED TO: KEVIN FITZGERALD

APPLICATION FOR: ALHANNAH FOOD

LICENSE TYPE: FOOD STORE

NEW LICENSE 2011

BUSINESS ADDRESS: 901 NIAGARA

BUSINESS PHONE: (716) 883-4806

COUNCIL DISTRICT: NI

POLICE DISTRICT:

APPLICANT NAME: BADR ALQATANI

APPL. PHONE: () -

APPLICATION NUMBER: 559681

REFERRAL DATE: 08/31/2010

REMARKS: 9073231

DISAPPROVAL REASON: MUST CALL FOR APPOINTMENT

(TO BE COMPLETED BY AGENCY/DEPARTMENT REFERRED TO)

APPROVED

DATE: 9-23-10

DISAPPROVED

DATE:

DISAPPROVAL  
CALL BACK

DATE:

\*\*\*REASON FOR DISAPPROVAL MUST BE STATED BELOW\*\*\*

REMARKS:

INSPECTOR

RM#

EXT

AFTER INSPECTION PLEASE COMPLETE AND RETURN THIS  
REFERRAL OF THE OFFICE OF LICENSES. THANK YOU.

AppSlip2.rpt

SEP 24 2010





CITY OF BUFFALO  
OFFICE OF LICENSES

301 CITY HALL  
BUFFALO, NEW YORK 14202

886

INSPECTION/APPROVAL REQUEST

AGENCY / DEPARTMENT: POLICE

REFERRED TO: COMMISSIONER OF POLICE

APPLICATION FOR: ALHANNAH FOOD

LICENSE TYPE: FOOD STORE 030

NEW LICENSE 2011

BUSINESS ADDRESS: 901 NIAGARA

BUSINESS PHONE: (716) 883-4806

COUNCIL DISTRICT: NI

POLICE DISTRICT:

APPLICANT NAME: BADR ALQATANI

APPL. PHONE: () -

APPLICATION NUMBER: 559681

REFERRAL DATE: 08/31/2010

REMARKS: 1ST REQUEST 8/31/2010  
2ND REQUEST 10/13/2010

DISAPPROVAL REASON:

(TO BE COMPLETED BY AGENCY/DEPARTMENT REFERRED TO)

APPROVED

DATE: 11-5-10

DISAPPROVED

DATE:

REMARKS:

DISTRICT CAPTAIN:

William P. Blake

William P. Blake

APPROVED

DATE:

DISAPPROVED

DATE:

\*\*\*REASON FOR DISAPPROVAL MUST BE STATED BELOW \*\*\*

REMARKS:

COMM. OF POLICE:

Charles Tomaszewski

AFTER INSPECTION PLEASE COMPLETE AND RETURN THIS  
REFERRAL TO THE OFFICE OF LICENSES. THANK YOU.



CITY OF BUFFALO  
OFFICE OF LICENSES

301 CITY HALL  
BUFFALO, NEW YORK 14202

882

INSPECTION/APPROVAL REQUEST

AGENCY / DEPARTMENT: COLLECTIONS OFFICE

REFERRED TO: COLLECTIONS OFFICE

APPLICATION FOR: ALHANNAH FOOD

LICENSE TYPE: FOOD STORE

NEW LICENSE 2011

BUSINESS ADDRESS: 901 NIAGARA

BUSINESS PHONE: (716) 883-4806

COUNCIL DISTRICT: NI

POLICE DISTRICT:

APPLICANT NAME: BADR ALQATANI

APPL. PHONE: 0 -

APPLICATION NUMBER: 559681

REFERRAL DATE:

REMARKS:

DISAPPROVAL REASON:

(TO BE COMPLETED BY AGENCY/DEPARTMENT REFERRED TO)

APPROVED

DATE: 9/07/10

DISAPPROVED

DATE:

DISAPPROVAL  
CALL BACK

DATE:

\*\*\*REASON FOR DISAPPROVAL MUST BE STATED BELOW\*\*\*

REMARKS: NO DEBT

INSPECTOR PATRICK IRWIN RM# 113 EXT 851-4395

AFTER INSPECTION PLEASE COMPLETE AND RETURN THIS  
REFERRAL OF THE OFFICE OF LICENSES. THANK YOU.



# CITY OF BUFFALO - LICENSE APPLICATION

65 Niagara Sq. City Hall Room 301 Buffalo, NY 14202  
Phone (715) 851-4078 Fax (716) 851-4952

RED

All information on this form is public record. ☐ Mail ☐ Walk-in

Type of Entity: ☐ Sole Proprietor ☐ Corporation ☐ Partnership ☐ Limited Liability Company

- |  |               |              |  |          |  |              |
|--|---------------|--------------|--|----------|--|--------------|
| <input type="checkbox"/> Restaurant                    | 1-200 seats   | fee \$174.00 | <input type="checkbox"/> Restaurant Dance              | fee      | <input type="checkbox"/> Restaurant Take Out   | fee \$ 88.00 |
| <input type="checkbox"/>                               | 201-400 seats | \$250.00     | <input type="checkbox"/> Floor Show                    | \$367.50 | <input checked="" type="checkbox"/> Food Store | \$115.00     |
| <input type="checkbox"/>                               | 400+ seats    | \$350.00     | <input type="checkbox"/> Live Music                    | \$210.00 | See additional questions.                      |              |
| (on premise consumption of food and/or beverage)       |               |              | <input type="checkbox"/> Mechanical                    | \$131.25 | <input type="checkbox"/> Meat Fish Poultry     | \$150.00     |
| <input type="checkbox"/> Certificate of Inspection     | \$56.00       |              | <input type="checkbox"/> Public Dance (based on sq ft) |          | <input type="checkbox"/> Caterer               | \$ 88.00     |
| <input type="checkbox"/> Coin Control Amusement        |               |              | <input type="checkbox"/> GoGo Dancing                  | \$131.25 | <input type="checkbox"/> Bakery                |              |
| # games _____ per game                                 | \$47.25       |              | <input type="checkbox"/> Skating Rink                  | \$210.00 | <input type="checkbox"/> 0-2 employees         | \$ 63.00     |
| <input type="checkbox"/> Arcade # games _____ per game | \$47.25       |              | <input type="checkbox"/> Bowling Alley per lane        | \$31.50  | <input type="checkbox"/> 3-10 employees        | \$105.00     |
| <input type="checkbox"/> Music mechanical              | \$52.50       |              | # lanes _____  |          | <input type="checkbox"/> 11-15 employees       | \$157.00     |
| <input type="checkbox"/> Music live, no dancing        | \$52.50       |              | <input type="checkbox"/> Billiard Parlor per table     | \$31.50  | <input type="checkbox"/> 26-50 employees       | \$315.00     |
| <input type="checkbox"/> News Stand                    | \$63.00       |              | # tables _____   |          | <input type="checkbox"/> 51-200 employees      | \$525.00     |

Corporation Name \_\_\_\_\_ Business Phone (716) 883-4806

Business Name (dba) ALHANNAH FOOD Business Fax ( ) \_\_\_\_\_

Business Address (no PO Box) 901 NIAGARA ST, BUFFALO, NY 14213

Mailing Address (if different) \_\_\_\_\_

NYS Tax ID # \_\_\_\_\_ Business Website \_\_\_\_\_ E-Mail \_\_\_\_\_

## Owner(s)/ Principal Partners

Applicant (last, first) ALQATANI, BADR M. Home Phone \_\_\_\_\_

Home Address: (PO Box not acceptable) 561 BUSTI AVE. APT 1, BUFFALO, NY 14201

Date of birth [REDACTED] Place of Birth YEMEN

Co-Applicant (last, first) \_\_\_\_\_ Home Phone \_\_\_\_\_

Home Address: (PO Box not acceptable) \_\_\_\_\_

Date of birth \_\_\_\_\_ Place of Birth \_\_\_\_\_

Describe your specific business activity in detail. Grocery Store

Subscribed and sworn to before me this 30 day of August 2010

Nagi A. Awass  
Notary Public  
Commissioner of Deeds in and for the  
City of Buffalo, New York  
County of Erie  
My Commission Expires June 26, 2011

I am aware of the obligation to provide timely notice of any change in required information, and I have informed all owners, managers, or other principals of their criminal and/or civic responsibility for the timely fulfillment of restrictions and conditions to the license or timely abatement of any nuisance activity at or associated with the business. Initial \_\_\_\_\_

As an authorized agent of the entity identified above, I certify the information on this form is true, correct, complete and current to the best of my knowledge and belief.

Print Name Badr Alqatani

Signature BADR ALQATANI

Date 8/30/10

For office use only

T&A \_\_\_\_\_  
Application No \_\_\_\_\_  
Date issued: \_\_\_\_\_

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
	*	*	*	
	*	*	*	
	*	*	*	
	*	*	*	

Maj - 5  
2/3 - 6  
3/4 - 7

That the Communication dated November 10, 2010 be received and filed and that the Commissioner of Permits and Inspections is hereby authorized to issue a Food Store License to BASH ALQATANI d/b/a ~~that Higan~~ ALHANNAN FOOD located at 901 Megan Street.

Passed.

84

FROM THE COMMISSIONER OF PARKING

November 16, 2010

00023

**Certificate of Appointment**

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **November 1, 2010**  
in the Department of **Parking**  
Division of **Parking Enforcement**  
to the Position of **Laborer II**  
Permanent, Provisional, Temporary, Seasonal (Insert one) **PERMANENT**  
Appointment, Promotion, Non-Competitive (Insert one) **NON-COMPETITIVE**  
Minimum, Intermediate, Maximum, Flat (Insert one) **INTERMEDIATE**

(Enter Starting Salary) : Starting Salary of: **\$25,604**

LAST JOB TITLE	<b>Laborer II (seasonal)</b>	NAME	<b>Robert Nespai</b>
LAST DEPARTMENT	<b>Parking</b>	DATE	<b>10/10</b>
LAST SALARY	<b>\$24,784</b>	ADDRESS	<b>720 Tonawanda St.</b>
		CITY & ZIP	<b>Buffalo 14207</b>
LAST 4 DIGITS OF SSN. <b>XXX-XX-9149</b>			

LAST JOB TITLE		NAME	
LAST DEPARTMENT		DATE	
LAST SALARY		ADDRESS	
		CITY & ZIP	
LAST 4 DIGITS OF SSN. <b>XXX-XX-</b>			

**REFERRED TO THE COMMITTEE ON CIVIL SERVICE**

BUDGET ORG. CODE	<b>11412001</b>	TITLE CODE NO	<b>9622</b>
BUDGET ACCT. OBJ.	<b>141112</b>	PERSONNEL REQ. NO	<b>2010-44</b>
SALARY RANGE OF POSITION	<b>\$22,070 - \$34,139</b>	PER YEAR DAY HOUR	<b>YEAR</b>

REASON FOR APPT. ABOVE THE MINIMUM: **Current salary is \$24,784 annually.**

NAME OF APPOINTING AUTHORITY: **Kevin J. Helfer**  
TITLE OF APPOINTING. AUTHORITY: **Commissioner**  
DATE: **10/25/10**

SIGNATURE OF APPOINTING AUTHORITY: 

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)  
OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET  
#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

FROM THE CITY CLERK

November 16, 2010

00024

gr

No.

Liquor License Applications

Attached hereto are communications from persons applying for liquor licenses from the Erie County Alcohol Beverage Control Board.

Address	Business Name	Owner's Name
1854 Hertel Ave	Checkers	M.L. Haley, Inc.

RECEIVED AND FILED

21

November 16, 2010





STATE OF NEW YORK  
EXECUTIVE DEPARTMENT  
DIVISION OF ALCOHOLIC BEVERAGE CONTROL  
STATE LIQUOR AUTHORITY

Standardized **ORIGINAL APPLICATION NOTICE FORM** for Providing a  
**30-Day Advance Notice** to a **Local Municipality or Community Board**  
in connection with the submission to the State Liquor Authority of the  
**Applicant's Original (First) On-Premises Alcoholic Beverage License Application**  
for the Establishment Identified in this Notice (Page 1 of 2)

51-10

Date the Original copy of this Notice was Mailed to the Local Municipality or Community Board:		1	0	2	7	2	0	1	0
THIS 30-DAY ADVANCE NOTICE IS BEING MAILED TO THE CLERK OF THE FOLLOWING LOCAL MUNICIPALITY OR COMMUNITY BOARD									
2.	Name of the Local Municipality or Community Board:	BUFFALO CITY CLERK							
3.	Street Address of Local Municipality or Community Board:	65 NIAGARA SQUARE CITY HALL							
4.	City, Town, or Village:	BUFFALO						NY	Zip Code: 14202
5.	Telephone Number of Clerk of Local Municipality or Community Board:	716-851-5431							
ATTORNEY REPRESENTING THE APPLICANT IN CONNECTION WITH THE APPLICANT'S ORIGINAL (FIRST) ON-PREMISES ALCOHOLIC BEVERAGE LICENSE APPLICATION FOR THE ESTABLISHMENT IDENTIFIED IN THIS NOTICE									
6.	Attorney's Full Name is:	CONSULTANT - CHESTER A. MENKIEW							
7.	Attorney's Street Address:	P O Box 241							
8.	City, Town, or Village:	CHEEKTOWAGA						NH	Zip Code: 14225
9.	Business Telephone Number of Attorney:	716-628-0191							
THE APPLICANT WILL FILE AN ORIGINAL (FIRST) APPLICATION FOR AN ON-PREMISES ALCOHOLIC BEVERAGE LICENSE IN ORDER TO CONDUCT - WITHIN THE IDENTIFIED ESTABLISHMENT - THE TYPE OF BUSINESS DESCRIBED BELOW									
10.	Type(s) of Alcohol to be sold under the License (*X* one):	<input type="checkbox"/> Beer Only <input type="checkbox"/> Wine and Beer Only <input checked="" type="checkbox"/> Liquor, Wine, and Beer							
11.	Extent of Food Service: (*X* one)	<input type="checkbox"/> Restaurant (Sale of Food Primarily; Full Food Menu; Kitchen run by Chef) <input type="checkbox"/> Tavern-Restaurant (A mixed-use establishment that has both a sit-down dining area and a "stand-up" bar where patrons may receive direct deliveries of alcohol) <input checked="" type="checkbox"/> Tavern / Cocktail Lounge / Adult Venue / Bar (Alcohol sales primarily - meets legal minimum food availability requirements)							
12.	Type of Establishment: (*X* all that apply)	<input type="checkbox"/> Hotel <input checked="" type="checkbox"/> Live Music <input type="checkbox"/> Disk Jockey <input type="checkbox"/> Juke Box <input checked="" type="checkbox"/> Patron Dancing (Small Scale) <input type="checkbox"/> Cabaret, Night Club, Discotheque (Large Scale Dance Club) <input type="checkbox"/> Capacity for 600 or more patrons <input type="checkbox"/> Club (e.g. Golf / Fraternal Org.) <input type="checkbox"/> Bed & Breakfast <input type="checkbox"/> Catering Facility <input type="checkbox"/> Stage Shows <input type="checkbox"/> Topless Entertainment <input checked="" type="checkbox"/> Other (Specify): RECORDED							
13.	Proposed Outdoor Area(s):	<input type="checkbox"/> None <input type="checkbox"/> Rooftop <input checked="" type="checkbox"/> Patio or Deck <input type="checkbox"/> Freestanding Covered Structure <input type="checkbox"/> Garden / Grounds <input type="checkbox"/> Other (Specify):							
14.	Will the proposed License Holder or a Manager be physically present within the establishment during All Hours of Operation? (*X* one):	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO							
15.	Application Serial Number:	Pending							
16.	The Applicant's Full Name, as it will appear in the application for the On-Premises Alcoholic Beverage License, is:	M.L. HALEY, Inc							
17.	The Full Name of the Applicant's proposed Licensed Establishment (the Trade Name under which the proposed Licensed Establishment will conduct business) is:	CHECKERS							
18.	The Applicant's proposed Licensed Establishment is located within the building which has the following Street Address:	1854 HERTEL AVE							
19.	City, Town, or Village:	BUFFALO						NY	Zip Code: 14216
20.	The proposed Licensed Establishment will be located on the following floor(s) of the building at the above address:	1st							
21.	Within the building at the above address, the proposed Licensed Establishment will be located within the room(s) numbered as follows:								
22.	Business Telephone Number of the Applicant:	716-803-7316							
23.	Business Fax Number of the Applicant:								
24.	Business E-Mail Address of the Applicant:								
25.	IF YOU KNOW - Was there ever an alcoholic beverage license in effect for the space where you intend to operate your licensed establishment?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> I Don't Know <input type="checkbox"/>							
OWNER OF THE BUILDING IN WHICH THE PROPOSED LICENSED ESTABLISHMENT WILL BE LOCATED									
26.	Does the Applicant own the building in which the proposed Licensed Establishment will be located? (*X* one)	Yes <input type="checkbox"/> If "YES", SKIP items No. 27, 28, 29, & 30 Go directly to Item No. 31, and complete the form. No <input checked="" type="checkbox"/> If "NO", ANSWER items No. 27, 28, 29, & 30. Then continue to Item No. 31, and complete the form.							
27.	Building Owner's Full Name is:								
28.	Building Owner's Street Address:								
29.	City, Town, or Village:							Zip Code:	
30.	Business Telephone Number of Building Owner:								



STATE OF NEW YORK  
EXECUTIVE DEPARTMENT  
DIVISION OF ALCOHOLIC BEVERAGE CONTROL  
STATE LIQUOR AUTHORITY

Standardized **ORIGINAL APPLICATION NOTICE FORM** for Providing a  
**30-Day Advance Notice** to a **Local Municipality or Community Board**  
in connection with the submission to the State Liquor Authority of the  
**Applicant's Original (First) On-Premises Alcoholic Beverage License Application**  
for the Establishment Identified in this Notice (Page 2 of 2)

(51-10)

IN ORDER TO MAKE SURE THAT PAGES 1 AND 2 OF YOUR NOTICE ARE NOT SEPARATED OR MISPLACED,  
PLEASE RE-ENTER IMMEDIATELY BELOW THE INFORMATION REGARDING YOUR APPLICATION SERIAL NUMBER, NAME, AND TRADE NAME.  
YOUR COURTESIES ARE APPRECIATED

15.	Application Serial Number:	Pending
16.	The Applicant's Full Name, as it will appear in the application for the On-Premises Alcoholic Beverage License, is:	M.L. Haley Inc
17.	The Full Name of the Applicant's proposed licensed Establishment (the Trade Name under which the proposed Licensed Establishment will conduct business) is:	Checkers

**INFORMATION REGARDING ANY BUSINESS LICENSED TO SELL ALCOHOLIC BEVERAGES THAT IS CURRENTLY BEING OPERATED IN THE SPACE WHERE THE APPLICANT INTENDS TO OPERATE HIS/HER/ITS PROPOSED LICENSED ESTABLISHMENT**

31.	IF YOU KNOW - Is a business that is licensed to sell alcoholic beverages currently being conducted in the space where you intend to operate your licensed establishment?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	I Don't Know <input type="checkbox"/>
32.	Are you buying any asset(s) owned by the operator of the licensed business currently being conducted in the space where you intend to operate your licensed establishment? (For example: good will, equipment, furniture, cookware, dishware, etc.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

IF YOU ANSWERED "YES" TO ITEM 31 or 32, SKIP ITEMS NO. 33 and 34. GO DIRECTLY TO ITEMS NO. 35, 36, 37, 38, 39, and 40.  
IF YOU ANSWERED "NO" TO ITEMS 31 and 32, PLEASE PROVIDE THE INFORMATION REQUESTED BY ITEMS NO. 33 and 34.

**IF A BUSINESS LICENSED TO SELL ALCOHOLIC BEVERAGES IS NOT CURRENTLY BEING OPERATED IN THE SPACE WHERE THE APPLICANT INTENDS TO OPERATE HIS/HER/ITS PROPOSED LICENSED ESTABLISHMENT, PLEASE PROVIDE INFORMATION REGARDING ANY BUSINESS LICENSED TO SELL ALCOHOLIC BEVERAGES THAT WAS MOST RECENTLY OPERATED IN THE SPACE**

33.	IF YOU KNOW - Was a business that was licensed to sell alcoholic beverages previously conducted in the space where you intend to operate your licensed establishment?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	I Don't Know <input type="checkbox"/>
34.	Are you buying any asset(s) owned by the operator of the licensed business that was most recently conducted in the space where you intend to operate your licensed establishment? (For example: good will, equipment, furniture, cookware, dishware, etc.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	

IF YOU ANSWERED "YES" TO ITEM NO. 31 or 32 or 33 or 34, THEN PLEASE ANSWER ITEMS NO. 35 and 36 and 37 and 38 and 39.

**INFORMATION ABOUT THE OPERATOR OF THE LICENSED BUSINESS CURRENTLY BEING CONDUCTED (OR MOST RECENTLY CONDUCTED) IN THE SPACE WHERE THE APPLICANT INTENDS TO OPERATE HIS/HER/ITS LICENSED ESTABLISHMENT. PLEASE PROVIDE THE FOLLOWING INFORMATION:**

35.	IF YOU KNOW - The Full Name of the Operator of the licensed business now being conducted (or that was most recently conducted) in the space where you intend to operate your licensed establishment:	HASSETT Jordan Inc	I Don't Know <input type="checkbox"/>
36.	IF YOU KNOW - The Full Name of the licensed Establishment (the Trade Name) now being operated (or that was most recently operated) in the space where you intend to operate your licensed establishment:	Checkers	I Don't Know <input type="checkbox"/>
37.	IF YOU KNOW - The alcoholic beverage license serial number of the business now being conducted (or that was most recently conducted) in the space where you intend to operate your licensed establishment:	3007926	I Don't Know <input type="checkbox"/>
38.	IF YOU KNOW - The Type of Alcoholic Beverage License held by the current (or most recent) licensed operator:	EXP. 9/30/10	I Don't Know <input type="checkbox"/>
39.	IF YOU KNOW - Telephone Number of the current licensed operator or the most recent licensed operator:		I Don't Know <input type="checkbox"/>

40.	If the Original Application is approved, I am the Person who will hold the License or I am a Principal of the Legal Entity that will hold the License. Representations in this form are in full conformity with representations made in documents that have been submitted (or documents that will be submitted) to the State Liquor Authority, and relied upon by the Authority. I understand that representations made in this form will be also relied upon by the Authority, and that false representations in any document submitted to the Authority may result in revocation of any license that may be issued. By my signature, I affirm - under <b>Penalty of Perjury</b> - that the representations made in this form are true.		
	Printed Name	Title	Signature
	Michele L Haley	Pres.	x Michele L Haley

No.

## Reports of Attendance

I transmit herewith communications received by me, from the various boards, commissions, agencies and authorities reporting the membership attendance at their respective meetings:

Board of Ethics

Records Management Board

Board of Parking

Board of Stadium and Auditorium

x Buffalo Sewer Authority

City Planning Board

Civil Service Commission

Committee on Drug Abuse Services

Commission on Human Relations

Consumer Electronics Board

Emergency Medical Services Board

Examining Board of Plumbers

Home Improvement Advisory Board

Municipal Housing Authority

Youth Board

Zoning Board of Appeals  
RECEIVED AND FILED.

November 16, 2010

22

#1

SINGLE PAGE COMMUNICATION TO THE COMMON COUNCIL

96

TO: THE COMMON COUNCIL:

DATE November 3, 2010

FROM:

DEPARTMENT BUFFALO SEWER AUTHORITY

DIVISION ADMINISTRATIVE

SUBJECT [: BOARD ATTENDANCE

[:

[:

ENTER PRIOR COUNCIL REFERENCE: ( IF ANY ) [:

This is to advise you that Board Members as follows were present at the Regular Meeting of the Buffalo Sewer Authority held on November 3, 2010, in Room 1038 City Hall:

Herbert L. Bellamy, Jr., Chairman  
Christopher Roosevelt, Assistant Vice Chairman  
John E. Kennedy, Jr., Assistant Secretary  
John D. Kennedy, Sr., Vice Chairman  
Eleanor C. Wilson-DiVincenzo, Secretary


**Absent:**

None

DEPARTMENT HEAD NAME: DAVID P. COMERFORD

TITLE: GENERAL MANAGER

SIGNATURE OF DEPARTMENT HEAD:



00026

91

No.

Notices of Appointments - Seasonal/Flat

I transmit herewith certificates received by me, reporting seasonal and flat salary appointments made in various departments.

RECEIVED AND FILED.

13

November 16, 2010

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective:

11/1/10

in the Department of

Public Works

Division of

Streets

to the Position of

Laborer II

Permanent, Provisional, Temporary, Seasonal (Insert one)

SEASONAL

Appointment, Promotion, Non-Competitive (Insert one)

APPOINTMENT

Minimum, Intermediate, Maximum, Flat (Insert one)

FLAT

(Enter Starting Salary) : Starting Salary of:

\$11.87

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

LAST 4 DIGITS OF SSN. XXX-XX-3960

NAME

ADDRESS

CITY &amp; ZIP

Michael Cirino

654 Amherst St.

Buffalo, NY 14207

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

LAST 4 DIGITS OF SSN. XXX-XX-

NAME

ADDRESS

CITY &amp; ZIP

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE

52002601

BUDGET ACCT. OBJ.

412002 PROJ. ID

SALARY RANGE OF POSITION

\$11.87

TITLE CODE NO

9624

PERSONNEL REQ. NO

2010-018

PER YEAR DAY HOUR

HOUR

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY:

Steven J. Stepniak

TITLE OF APPOINTING AUTHORITY:

Commissioner

DATE:

10/19/10

SIGNATURE OF APPOINTING AUTHORITY:

William Ferrell

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)

OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET

#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

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Appointment Effective:

11/1/10

in the Department of

**Public Works**

Division of

**Streets**

to the Position of

**Laborer II**

Permanent, Provisional, Temporary, Seasonal (Insert one)

**SEASONAL**

Appointment, Promotion, Non-Competitive (Insert one)

**APPOINTMENT**

Minimum, Intermediate, Maximum, Flat (Insert one)

**FLAT**

(Enter Starting Salary) : Starting Salary of:

**\$11.87**

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

**Terry Bailey****236 Lemon St.****Buffalo, NY 14204**LAST 4 DIGITS OF SSN. XXX-XX-**5718**

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

LAST 4 DIGITS OF SSN. XXX-XX-

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE

**52002601**

BUDGET ACCT. OBJ.

**412002** PROJ. ID

SALARY RANGE OF POSITION

**\$11.87**

TITLE CODE NO

**9624**

PERSONNEL REQ. NO

**2010-018**

PER YEAR DAY HOUR

**HOUR**

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY:

**Steven J. Stepniak**

TITLE OF APPOINTING. AUTHORITY:

**Commissioner**

DATE:

10/18/10

SIGNATURE OF APPOINTING AUTHORITY:

*William R. Heino*

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)

OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET

#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **11/01/2010**  
in the Department of **Public Works, Parks & Streets**  
Division of **Parks**  
to the Position of **Lifeguard**  
Permanent, Provisional, Temporary, Seasonal (Insert one) **SEASONAL**  
Appointment, Promotion, Non-Competitive (Insert one) **APPOINTMENT**  
Minimum, Intermediate, Maximum, Flat (Insert one) **FLAT**

(Enter Starting Salary) : Starting Salary of: **\$11.87**

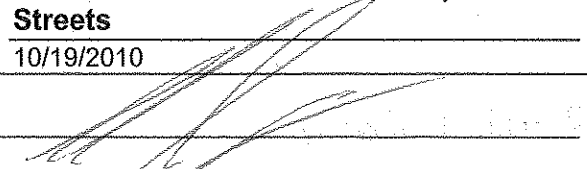
LAST JOB TITLE	<b>Community Recreation Aide</b>	NAME	<b>Marcia Maracle</b>
LAST DEPARTMENT	<b>Parks</b>	DATE	<b>10/19/10</b>
LAST SALARY	<b>\$37,780</b>	ADDRESS	<b>283 Crestwood Avenue</b>
		CITY & ZIP	<b>Buffalo 14216</b>
LAST 4 DIGITS OF SSN. <b>XXX-XX-6238</b>			

LAST JOB TITLE		NAME	
LAST DEPARTMENT		DATE	
LAST SALARY		ADDRESS	
		CITY & ZIP	
LAST 4 DIGITS OF SSN. <b>XXX-XX-</b>			

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE	<b>14222001</b>	TITLE CODE NO	<b>9624</b>
BUDGET ACCT. OBJ.	<b>412002</b>	PERSONNEL REQ. NO	<b>2009-094</b>
SALARY RANGE OF POSITION	<b>\$11.87</b>	PER YEAR DAY HOUR	<b>YEAR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Steven J. Stepniak**  
TITLE OF APPOINTING AUTHORITY: **Commissioner of Public Works, Parks & Streets**  
DATE: **10/19/2010**  
SIGNATURE OF APPOINTING AUTHORITY: 

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)  
OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET  
#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)



No.

## Appointments - Temporary, Provisional or Permanent

I transmit herewith Appointments in the various departments made at the Minimum (Temporary, Provisional or Permanent) (as per contract requirements) .

REFERRED TO THE COMMITTEE ON CIVIL SERVICE.

November 16, 2010

24

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **November 1, 2010**

in the Department of **Parking**

Division of **Parking Enforcement**

to the Position of **Laborer II**

Permanent, Provisional, Temporary, Seasonal (Insert one) **PERMANENT**

Appointment, Promotion, Non-Competitive (Insert one) **NON-COMPETITIVE**

Minimum, Intermediate, Maximum, Flat (Insert one) **MINIMUM**

(Enter Starting Salary) : Starting Salary of: **\$22,070**

LAST JOB TITLE	<b>Parking Enforcement Officer</b>	NAME	<b>Joseph Castiglia</b>
LAST DEPARTMENT	<b>Parking</b>	ADDRESS	<b>343 Roesch Avenue</b>
LAST SALARY	<b>22,070</b>	CITY & ZIP	<b>Buffalo 14207</b>
LAST 4 DIGITS OF SSN. <b>XXX-XX-8810</b>			

LAST JOB TITLE		NAME	
LAST DEPARTMENT		ADDRESS	
LAST SALARY		CITY & ZIP	
LAST 4 DIGITS OF SSN. <b>XXX-XX-</b>			

## REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE	<b>11413001</b>	TITLE CODE NO	<b>9622</b>
BUDGET ACCT. OBJ.	<b>141113</b>	PERSONNEL REQ. NO	<b>2010-43</b>
SALARY RANGE OF POSITION	<b>\$22,070 - \$34,139</b>	PER YEAR DAY HOUR	<b>YEAR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Kevin J. Helfer**

TITLE OF APPOINTING AUTHORITY: **Commissioner of Parking**

DATE: **10/25/10**

SIGNATURE OF APPOINTING AUTHORITY: 

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)

OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET

#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective:

11/1/10

in the Department of

**Public Works**

Division of

**Streets**

to the Position of

**Truck Driver**

Permanent, Provisional, Temporary, Seasonal (Insert one)

**PERMANENT**

Appointment, Promotion, Non-Competitive (Insert one)

**APPOINTMENT**

Minimum, Intermediate, Maximum, Flat (Insert one)

**MINIMUM**

(Enter Starting Salary) : Starting Salary of:

**\$22,468**

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

**Jeffrey Dunbar****155 O'Connell Avenue****Buffalo, NY 14204**LAST 4 DIGITS OF SSN. XXX-XX-**9857**

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

LAST 4 DIGITS OF SSN. XXX-XX-

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE

**15030001**

BUDGET ACCT. OBJ.

**411001** PROJ. ID

TITLE CODE NO

**6021**

SALARY RANGE OF POSITION

**\$22,468-\$37,447**

PERSONNEL REQ. NO

**2009-124**

PER YEAR DAY HOUR

**YEAR**

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY:

**Steven J. Stepniak**

TITLE OF APPOINTING AUTHORITY:

**Commissioner**

DATE:

**10/22/2010**

SIGNATURE OF APPOINTING AUTHORITY:

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)  
 OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET  
 #8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

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Appointment Effective:

11/11/10

in the Department of

**Public Works**

Division of

**Streets**

to the Position of

**Truck Driver**

Permanent, Provisional, Temporary, Seasonal (Insert one)

**PERMANENT**

Appointment, Promotion, Non-Competitive (Insert one)

**APPOINTMENT**

Minimum, Intermediate, Maximum, Flat (Insert one)

**MINIMUM**

(Enter Starting Salary) : Starting Salary of:

**\$22,468**

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

**Henry Bogan****174 Butler St.****Buffalo, NY 14208**LAST 4 DIGITS OF SSN. **XXX-XX-3422**

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

LAST 4 DIGITS OF SSN. **XXX-XX-**

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE

**52002601**

BUDGET ACCT. OBJ.

**411001** PROJ. ID

TITLE CODE NO

**6021**

SALARY RANGE OF POSITION

**\$22,468-\$37,447**

PERSONNEL REQ. NO

**2010-31**

PER YEAR DAY HOUR

**YEAR**

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY:

**Steven J. Stepniak**

TITLE OF APPOINTING AUTHORITY:

**Commissioner**

DATE:

**10/22/2010**

SIGNATURE OF APPOINTING AUTHORITY:

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)  
 OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET  
 #8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective:

11/1/10

in the Department of

Public Works

Division of

Streets

to the Position of

Truck Driver

Permanent, Provisional, Temporary, Seasonal (Insert one)

PERMANENT

Appointment, Promotion, Non-Competitive (Insert one)

APPOINTMENT

Minimum, Intermediate, Maximum, Flat (Insert one)

MINIMUM

(Enter Starting Salary) : Starting Salary of:

\$22,468

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

Gregory Wachowiak

PO Box 1921

Buffalo, NY 14240

LAST 4 DIGITS OF SSN. XXX-XX-4676

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

LAST 4 DIGITS OF SSN. XXX-XX-

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE

52002601

BUDGET ACCT. OBJ.

4110011 PROJ. ID

SALARY RANGE OF POSITION

\$22,468-\$37,447

TITLE CODE NO

6021

PERSONNEL REQ. NO

2009-023

PER YEAR DAY HOUR

YEAR

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY:

Steven J. Stepniak

TITLE OF APPOINTING AUTHORITY:

Commissioner

DATE:

10/22/2010

SIGNATURE OF APPOINTING AUTHORITY:

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)  
OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET  
#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective:

11/1/10

in the Department of

Public Works

Division of

Streets

to the Position of

Truck Driver

Permanent, Provisional, Temporary, Seasonal (Insert one)

PERMANENT

Appointment, Promotion, Non-Competitive (Insert one)

APPOINTMENT

Minimum, Intermediate, Maximum, Flat (Insert one)

MINIMUM

(Enter Starting Salary) : Starting Salary of:

\$22,468

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

Moses Hyman Jr.

18 Blake St.

Buffalo, NY 14211

LAST 4 DIGITS OF SSN. XXX-XX-8758

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

LAST 4 DIGITS OF SSN. XXX-XX-

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE

52002601

BUDGET ACCT. OBJ.

411001 PROJ. ID

SALARY RANGE OF POSITION

\$22,468-\$37,447

TITLE CODE NO

6021

PERSONNEL REQ. NO

2009-122

PER YEAR DAY HOUR

YEAR

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY:

Steven J. Stepniak

TITLE OF APPOINTING. AUTHORITY:

Commissioner

DATE:

10/22/2010

SIGNATURE OF APPOINTING AUTHORITY:

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)  
OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET  
#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective:

11/1/10

in the Department of

Public Works

Division of

Streets

to the Position of

Truck Driver

Permanent, Provisional, Temporary, Seasonal (Insert one)

PERMANENT

Appointment, Promotion, Non-Competitive (Insert one)

APPOINTMENT

Minimum, Intermediate, Maximum, Flat (Insert one)

MINIMUM

(Enter Starting Salary) : Starting Salary of:

\$22,468

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

Richard Gallagher

66 Cambria St.

Buffalo, NY 14206

LAST 4 DIGITS OF SSN. XXX-XX-1080

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

LAST 4 DIGITS OF SSN. XXX-XX-

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE

52002601

BUDGET ACCT. OBJ.

411001

PROJ. ID

TITLE CODE NO

6021

SALARY RANGE OF POSITION

\$22,468-\$37,447

PERSONNEL REQ. NO

2009-123

PER YEAR DAY HOUR

YEAR

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY:

Steven J. Stepniak

TITLE OF APPOINTING AUTHORITY:

Commissioner

DATE:

10/22/2010

SIGNATURE OF APPOINTING AUTHORITY:

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)  
OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET  
#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

②  
108

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective:

11/8/10

in the Department of

Public Works

Division of

Parks

to the Position of

Laborer II

Permanent, Provisional, Temporary, Seasonal (Insert one)

PERMANENT

Appointment, Promotion, Non-Competitive (Insert one)

NON-COMPETITIVE

Minimum, Intermediate, Maximum, Flat (Insert one)

MINIMUM

(Enter Starting Salary) : Starting Salary of:

\$22,070

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

Guy J. Jaeckle

83 Fuller St.

Buffalo, NY 14207

LAST 4 DIGITS OF SSN. XXX-XX-2117

LAST JOB TITLE

LAST DEPARTMENT

LAST SALARY

DATE

NAME

ADDRESS

CITY &amp; ZIP

LAST 4 DIGITS OF SSN. XXX-XX-

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE

14160001

BUDGET ACCT. OBJ.

411001 PROJ. ID

SALARY RANGE OF POSITION

\$22,070-34,139

TITLE CODE NO

9622

PERSONNEL REQ. NO

2010-67

PER YEAR DAY HOUR

YEAR

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY:

Steven J. Stepniak

TITLE OF APPOINTING AUTHORITY:

Commissioner

DATE:

11/3/10

SIGNATURE OF APPOINTING AUTHORITY:

William R. Heindel

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)

OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET

#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)



# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **11/01/2010**

in the Department of **Public Works, Parks & Streets**

Division of **Buildings**

to the Position of **Senior First Class Stationary Engineer**

Permanent, Provisional, Temporary, Seasonal (Insert one) **TEMPORARY**

Appointment, Promotion, Non-Competitive (Insert one) **APPOINTMENT**

Minimum, Intermediate, Maximum, Flat (Insert one) **FLAT**

(Enter Starting Salary) : Starting Salary of: **\$15.00**

LAST JOB TITLE	<b>Sr. 1<sup>st</sup> CI Stationary Engineer</b>	NAME	<b>Richard M. Veroba</b>
LAST DEPARTMENT	<b>Buildings</b>	DATE	<b>05/30/10</b>
LAST SALARY	<b>\$15.00</b>	ADDRESS	<b>24 Lester Street</b>
		CITY & ZIP	<b>Buffalo 14210</b>
LAST 4 DIGITS OF SSN.		<b>XXX-XX-1423</b>	

LAST JOB TITLE		NAME	
LAST DEPARTMENT		ADDRESS	
LAST SALARY		CITY & ZIP	
LAST 4 DIGITS OF SSN.		<b>XXX-XX-</b>	

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE	<b>13296001</b>	TITLE CODE NO	<b>832J</b>
BUDGET ACCT. OBJ.	<b>412002</b>	PERSONNEL REQ. NO	<b>2010-12</b>
SALARY RANGE OF POSITION	<b>\$15.00</b>	PER YEAR DAY HOUR	<b>HOUR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Steven J. Stepniak**

TITLE OF APPOINTING AUTHORITY: **Commissioner of Public Works, Parks & Streets**

DATE: **10/27/2010**

SIGNATURE OF APPOINTING AUTHORITY: \_\_\_\_\_

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)

OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET

#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **11/02/2010**  
in the Department of **Public Works, Parks & Streets**  
Division of **Buildings**  
to the Position of **Senior First Class Stationary Engineer**  
Permanent, Provisional, Temporary, Seasonal (Insert one) **TEMPORARY**  
Appointment, Promotion, Non-Competitive (Insert one) **APPOINTMENT**  
Minimum, Intermediate, Maximum, Flat (Insert one) **FLAT**

(Enter Starting Salary) : Starting Salary of: **\$15.00**

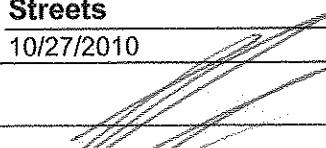
LAST JOB TITLE	<b>Sr. 1<sup>st</sup> CI Stationary Engineer</b>	NAME	<b>Mark H. Overfield</b>
LAST DEPARTMENT	<b>Buildings</b>	DATE	<b>04/29/10</b>
LAST SALARY	<b>\$15.00</b>	ADDRESS	<b>320 Fenton Street</b>
		CITY & ZIP	<b>Buffalo 14206</b>
LAST 4 DIGITS OF SSN. <b>XXX-XX-2276</b>			

LAST JOB TITLE		NAME	
LAST DEPARTMENT		ADDRESS	
LAST SALARY		CITY & ZIP	
LAST 4 DIGITS OF SSN. <b>XXX-XX-</b>			

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE	<b>13296001</b>	TITLE CODE NO	<b>832J</b>
BUDGET ACCT. OBJ.	<b>412002</b>	PERSONNEL REQ. NO	<b>2010-12</b>
SALARY RANGE OF POSITION	<b>\$15.00</b>	PER YEAR DAY HOUR	<b>HOUR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Steven J. Stepniak**  
TITLE OF APPOINTING AUTHORITY: **Commissioner of Public Works, Parks & Streets**  
DATE: **10/27/2010**  
SIGNATURE OF APPOINTING AUTHORITY: 

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)  
OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET  
#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **11/03/2010**

in the Department of **Public Works, Parks & Streets**

Division of **Buildings**

to the Position of **Senior First Class Stationary Engineer**

Permanent, Provisional, Temporary, Seasonal (Insert one) **TEMPORARY**

Appointment, Promotion, Non-Competitive (Insert one) **APPOINTMENT**

Minimum, Intermediate, Maximum, Flat (Insert one) **FLAT**

(Enter Starting Salary) : Starting Salary of: **\$15.00**

LAST JOB TITLE	<b>Sr. 1<sup>st</sup> CI Stationary Engineer</b>	NAME	<b>Edward D. Standish III</b>
LAST DEPARTMENT	<b>Buildings</b>	DATE	<b>07/30/10</b>
LAST SALARY	<b>\$15.00</b>	ADDRESS	<b>444 N. Legion Drive</b>
		CITY & ZIP	<b>Buffalo 14210</b>
LAST 4 DIGITS OF SSN. <b>XXX-XX-7399</b>			

LAST JOB TITLE		NAME	
LAST DEPARTMENT		ADDRESS	
LAST SALARY		CITY & ZIP	
LAST 4 DIGITS OF SSN. <b>XXX-XX-</b>			

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

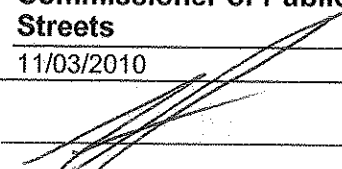
BUDGET ORG. CODE	<b>13296001</b>	TITLE CODE NO	<b>832J</b>
BUDGET ACCT. OBJ.	<b>412002</b>	PERSONNEL REQ. NO	<b>2010-12</b>
SALARY RANGE OF POSITION	<b>\$15.00</b>	PER YEAR DAY HOUR	<b>HOUR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Steven J. Stepniak**

TITLE OF APPOINTING. AUTHORITY: **Commissioner of Public Works, Parks & Streets**

DATE: **11/03/2010**

SIGNATURE OF APPOINTING AUTHORITY: 

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)

OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET

#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **11/03/2010**  
in the Department of **Public Works, Parks & Streets**  
Division of **Buildings**  
to the Position of **Senior First Class Stationary Engineer**  
Permanent, Provisional, Temporary, Seasonal (Insert one) **TEMPORARY**  
Appointment, Promotion, Non-Competitive (Insert one) **APPOINTMENT**  
Minimum, Intermediate, Maximum, Flat (Insert one) **FLAT**

(Enter Starting Salary) : Starting Salary of: **\$15.00**

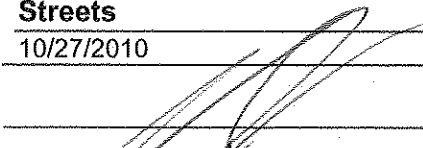
LAST JOB TITLE	<b>Sr. 1<sup>st</sup> CI Stationary Engineer</b>	NAME	<b>Mark D. Blake</b>
LAST DEPARTMENT	<b>Buildings</b>	DATE	<b>05/27/10</b>
LAST SALARY	<b>\$15.00</b>	ADDRESS	<b>158 Dundee Street</b>
		CITY & ZIP	<b>Buffalo 14220</b>
LAST 4 DIGITS OF SSN. <b>XXX-XX-2791</b>			

LAST JOB TITLE		NAME	
LAST DEPARTMENT		ADDRESS	
LAST SALARY		CITY & ZIP	
LAST 4 DIGITS OF SSN. <b>XXX-XX-</b>			

## REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE	<b>13296001</b>	TITLE CODE NO	<b>832J</b>
BUDGET ACCT. OBJ.	<b>412002</b>	PERSONNEL REQ. NO	<b>2010-12</b>
SALARY RANGE OF POSITION	<b>\$15.00</b>	PER YEAR DAY HOUR	<b>HOUR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Steven J. Stepniak**  
TITLE OF APPOINTING. AUTHORITY: **Commissioner of Public Works, Parks & Streets**  
DATE: **10/27/2010**  
SIGNATURE OF APPOINTING AUTHORITY: 

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)  
OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET  
#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

**Certificate of Appointment**

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **11/04/2010**  
in the Department of **Public Works, Parks & Streets**  
Division of **Buildings**  
to the Position of **Senior First Class Stationary Engineer**  
Permanent, Provisional, Temporary, Seasonal (Insert one) **TEMPORARY**  
Appointment, Promotion, Non-Competitive (Insert one) **APPOINTMENT**  
Minimum, Intermediate, Maximum, Flat (Insert one) **FLAT**

(Enter Starting Salary) : Starting Salary of: **\$15.00**


LAST JOB TITLE	<b>Sr. 1<sup>st</sup> CI Stationary Engineer</b>	NAME	<b>Michael J. Schieber</b>
LAST DEPARTMENT	<b>Buildings</b>	DATE	<b>05/30/10</b>
LAST SALARY	<b>\$15.00</b>	ADDRESS	<b>168 Dundee Street</b>
		CITY & ZIP	<b>Buffalo 14220</b>
LAST 4 DIGITS OF SSN. <b>XXX-XX-7381</b>			

LAST JOB TITLE		NAME	
LAST DEPARTMENT	DATE	ADDRESS	
LAST SALARY		CITY & ZIP	
LAST 4 DIGITS OF SSN. <b>XXX-XX-</b>			

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE	<b>13296001</b>	TITLE CODE NO	<b>832J</b>
BUDGET ACCT. OBJ.	<b>412002</b>	PERSONNEL REQ. NO	<b>2010-12</b>
SALARY RANGE OF POSITION	<b>\$15.00</b>	PER YEAR DAY HOUR	<b>HOUR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Steven J. Stepniak**  
TITLE OF APPOINTING. AUTHORITY: **Commissioner of Public Works, Parks & Streets**  
DATE: **10/27/2010**  
SIGNATURE OF APPOINTING AUTHORITY: 

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)  
OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET  
#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **11/05/2010**  
in the Department of **Public Works, Parks & Streets**  
Division of **Buildings**  
to the Position of **Senior First Class Stationary Engineer**  
Permanent, Provisional, Temporary, Seasonal (Insert one) **TEMPORARY**  
Appointment, Promotion, Non-Competitive (Insert one) **APPOINTMENT**  
Minimum, Intermediate, Maximum, Flat (Insert one) **FLAT**

(Enter Starting Salary) : Starting Salary of: **\$15.00**

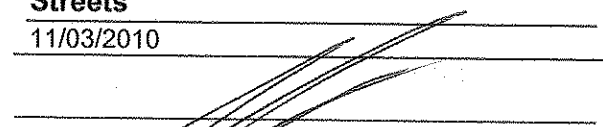
LAST JOB TITLE	<b>Sr. 1<sup>st</sup> CI Stationary Engineer</b>	NAME	<b>Timothy D. Devany</b>
LAST DEPARTMENT	<b>Buildings</b>	DATE	<b>05/29/10</b>
LAST SALARY	<b>\$15.00</b>	ADDRESS	<b>19 Mumford Street</b>
		CITY & ZIP	<b>Buffalo 14220</b>
LAST 4 DIGITS OF SSN. <b>XXX-XX-9948</b>			

LAST JOB TITLE		NAME	
LAST DEPARTMENT		DATE	
LAST SALARY		ADDRESS	
		CITY & ZIP	
LAST 4 DIGITS OF SSN. <b>XXX-XX-</b>			

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE	<b>13296001</b>	TITLE CODE NO	<b>832J</b>
BUDGET ACCT. OBJ.	<b>412002</b>	PERSONNEL REQ. NO	<b>2010-12</b>
SALARY RANGE OF POSITION	<b>\$15.00</b>	PER YEAR DAY HOUR	<b>HOUR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Steven J. Stepniak**  
TITLE OF APPOINTING AUTHORITY: **Commissioner of Public Works, Parks & Streets**  
DATE: **11/03/2010**  
SIGNATURE OF APPOINTING AUTHORITY: 

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)  
OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET  
#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **11/05/2010**

in the Department of **Public Works, Parks & Streets**

Division of **Buildings**

to the Position of **Senior First Class Stationary Engineer**

Permanent, Provisional, Temporary, Seasonal (Insert one) **TEMPORARY**

Appointment, Promotion, Non-Competitive (Insert one) **APPOINTMENT**

Minimum, Intermediate, Maximum, Flat (Insert one) **FLAT**

(Enter Starting Salary) : Starting Salary of: **\$15.00**

LAST JOB TITLE	<b>Sr. 1<sup>st</sup> CI Stationary Engineer</b>	NAME	<b>Michael J. Whelan</b>
LAST DEPARTMENT	<b>Buildings</b>	DATE	<b>06/04/10</b>
LAST SALARY	<b>\$15.00</b>	ADDRESS	<b>162 Mariemont Avenue</b>
		CITY & ZIP	<b>Buffalo 14220</b>
LAST 4 DIGITS OF SSN.		<b>XXX-XX-0932</b>	

LAST JOB TITLE		NAME	
LAST DEPARTMENT		ADDRESS	
LAST SALARY		CITY & ZIP	
LAST 4 DIGITS OF SSN.		<b>XXX-XX-</b>	

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

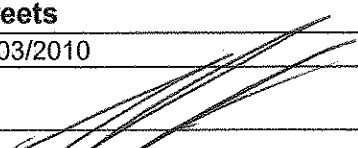
BUDGET ORG. CODE	<b>13296001</b>	TITLE CODE NO	<b>832J</b>
BUDGET ACCT. OBJ.	<b>412002</b>	PERSONNEL REQ. NO	<b>2010-12</b>
SALARY RANGE OF POSITION	<b>\$15.00</b>	PER YEAR DAY HOUR	<b>HOUR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Steven J. Stepniak**

TITLE OF APPOINTING AUTHORITY: **Commissioner of Public Works, Parks & Streets**

DATE: **11/03/2010**

SIGNATURE OF APPOINTING AUTHORITY: 

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)

OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET

#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

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Appointment Effective: **11/05/2010**

in the Department of **Public Works, Parks & Streets**

Division of **Buildings**

to the Position of **Senior First Class Stationary Engineer**

Permanent, Provisional, Temporary, Seasonal (Insert one) **TEMPORARY**

Appointment, Promotion, Non-Competitive (Insert one) **APPOINTMENT**

Minimum, Intermediate, Maximum, Flat (Insert one) **FLAT**

(Enter Starting Salary) : Starting Salary of: **\$15.00**

LAST JOB TITLE	<b>Sr. 1<sup>st</sup> CI Stationary Engineer</b>	NAME	<b>Matthew J. Quinn</b>
LAST DEPARTMENT	<b>Buildings</b>	DATE	<b>05/29/10</b>
LAST SALARY	<b>\$15.00</b>	ADDRESS	<b>42 Stevenson Street</b>
		CITY & ZIP	<b>Buffalo 14220</b>
LAST 4 DIGITS OF SSN.		<b>XXX-XX-9889</b>	

LAST JOB TITLE		NAME	
LAST DEPARTMENT		ADDRESS	
LAST SALARY		CITY & ZIP	
LAST 4 DIGITS OF SSN.		<b>XXX-XX-</b>	

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

BUDGET ORG. CODE	<b>13296001</b>	TITLE CODE NO	<b>832J</b>
BUDGET ACCT. OBJ.	<b>412002</b>	PERSONNEL REQ. NO	<b>2010-12</b>
SALARY RANGE OF POSITION	<b>\$15.00</b>	PER YEAR DAY HOUR	<b>HOUR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Steven J. Stepniak**

TITLE OF APPOINTING AUTHORITY: **Commissioner of Public Works, Parks & Streets**

DATE: **10/27/2010**

SIGNATURE OF APPOINTING AUTHORITY: \_\_\_\_\_

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)

OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET

#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)



# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **11/06/2010**

in the Department of **Public Works, Parks & Streets**

Division of **Buildings**

to the Position of **Senior First Class Stationary Engineer**

Permanent, Provisional, Temporary, Seasonal (Insert one) **TEMPORARY**

Appointment, Promotion, Non-Competitive (Insert one) **APPOINTMENT**

Minimum, Intermediate, Maximum, Flat (Insert one) **FLAT**

(Enter Starting Salary) : Starting Salary of: **\$15.00**

LAST JOB TITLE	<b>Sr. 1<sup>st</sup> CI Stationary Engineer</b>	NAME	<b>Cherie M. Ciaudella</b>
LAST DEPARTMENT	<b>Buildings</b>	DATE	<b>09/24/10</b>
LAST SALARY	<b>\$15.00</b>	ADDRESS	<b>2219 Bailey Avenue</b>
		CITY & ZIP	<b>Buffalo 14211</b>
LAST 4 DIGITS OF SSN. <b>XXX-XX-3733</b>			

LAST JOB TITLE		NAME	
LAST DEPARTMENT		ADDRESS	
LAST SALARY		CITY & ZIP	
LAST 4 DIGITS OF SSN. <b>XXX-XX-</b>			

REFERRED TO THE COMMITTEE ON CIVIL SERVICE

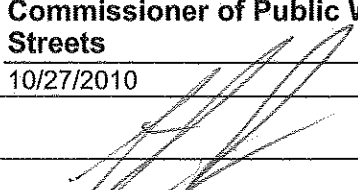
BUDGET ORG. CODE	<b>13296001</b>	TITLE CODE NO	<b>832J</b>
BUDGET ACCT. OBJ.	<b>412002</b>	PERSONNEL REQ. NO	<b>2010-12</b>
SALARY RANGE OF POSITION	<b>\$15.00</b>	PER YEAR DAY HOUR	<b>HOUR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Steven J. Stepniak**

TITLE OF APPOINTING AUTHORITY: **Commissioner of Public Works, Parks & Streets**

DATE: **10/27/2010**

SIGNATURE OF APPOINTING AUTHORITY: 

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)

OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET

#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

# Certificate of Appointment

In compliance with provisions of Section 24-2 of the Charter and Chapter 35-1 of the Ordinances of the City of Buffalo, I transmit this certification of appointment(s) or promotion(s). I further certify that the person(s) named in Schedule "A" have been certified or approved by the Human Resources/Civil Service for the

Appointment Effective: **11/09/2010**

in the Department of **Public Works, Parks & Streets**

Division of **Buildings**

to the Position of **Senior First Class Stationary Engineer**

Permanent, Provisional, Temporary, Seasonal (Insert one) **TEMPORARY**

Appointment, Promotion, Non-Competitive (Insert one) **APPOINTMENT**

Minimum, Intermediate, Maximum, Flat (Insert one) **FLAT**

(Enter Starting Salary) : Starting Salary of: **\$15.00**

LAST JOB TITLE	<b>Sr. 1<sup>st</sup> CI Stationary Engineer</b>	NAME	<b>Andrew Krawchuk</b>
LAST DEPARTMENT	<b>Buildings</b>	DATE	<b>04/30/10</b>
LAST SALARY	<b>\$15.00</b>	ADDRESS	<b>427 Forest Avenue</b>
		CITY & ZIP	<b>Buffalo 14213</b>
LAST 4 DIGITS OF SSN. <b>XXX-XX-0660</b>			

LAST JOB TITLE		NAME	
LAST DEPARTMENT		ADDRESS	
LAST SALARY		CITY & ZIP	
LAST 4 DIGITS OF SSN. <b>XXX-XX-</b>			

## REFERRED TO THE COMMITTEE ON CIVIL SERVICE

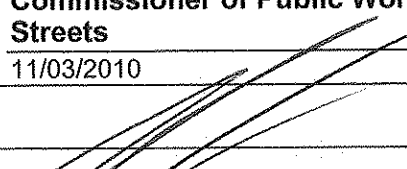
BUDGET ORG. CODE	<b>13296001</b>	TITLE CODE NO	<b>832J</b>
BUDGET ACCT. OBJ.	<b>412002</b>	PERSONNEL REQ. NO	<b>2010-12</b>
SALARY RANGE OF POSITION	<b>\$15.00</b>	PER YEAR DAY HOUR	<b>HOUR</b>

REASON FOR APPT. ABOVE THE MINIMUM:

NAME OF APPOINTING AUTHORITY: **Steven J. Stepniak**

TITLE OF APPOINTING AUTHORITY: **Commissioner of Public Works, Parks & Streets**

DATE: **11/03/2010**

SIGNATURE OF APPOINTING AUTHORITY: 

ORIGINAL + 3 COPIES TO: CITY CLERK (ON/BEFORE APPOINTMENT DATE)

OTHER COPIES TO: #5- COMPTROLLER #6- HUMAN SERVICES/CIVIL SERVICE #7- BUDGET

#8- DEPARTMENT #9- DIVISION #10- EMPLOYEE(S)

NON-OFFICIAL COMMUNICATIONS, PETITIONS AND REMONSTRANCES

NON-OFFICIAL COMMUNICATIONS

**Memorandum**

To: Deputy City Clerk Gerald Chwalinski  
From: Program Packaging and Development Services (PPDS) Provider  
Date: November 2, 2010  
Regarding ~~X~~ Board Packet Documents

---

Attached are the following documents from the Joint Schools Construction Board meeting scheduled on November 1, 2010:

1. Draft Agenda
2. Meeting Minutes from JSCB Meeting dated October 4, 2010
3. Fully Executed Phase III Application and Certificate for Payment No. 42 – September 2010
4. Fully Executed Phase IV Application and Certificate for Payment No. 27 – September 2010
5. Phase III Application and Certificate for Payment No. 43 – October 2010
6. Phase IV Application and Certificate for Payment No. 28 – October 2010
7. Phase V Application and Certificate for Payment No. 11 – October 2010
8. Program Packaging and Development Services (PPDS) Provider Update
9. Bevlar & Associates Inc. Construction Contract Monitoring and Compliance Services Monthly Report for Addendum 1 Phase IV Project – September 2010
10. Inclusion Development Associates, Inc. Construction Contract Compliance Monitoring Monthly Report for Phase IV – September 2010

**RECEIVED AND FILED**

Copy Available for Review in the City Clerk's Office

WAR OF 1812  
 COMMEMORATIVE  
 BONFIRES

October 20, 2010 121

Buffalo Fire Department  
 Chief Mark A. Morganti  
 Bureau of Fire Prevention  
 Room 321 City Hall  
 Buffalo, N.Y. 14202

Dear Chief Morganti:

Based upon a suggestion made by John Sek of St. Catharines, Ontario, the Black Rock/Riverside Good Neighbors Planning Alliance (BR/R GNPA) Historic Preservation committee held a meeting on July 15, 2010 to further discuss the idea of commemorative bonfires to be mounted on both sides of the Niagara River during the period leading up to the start of the 200<sup>th</sup> anniversary of the War of 1812 in Black Rock. This would symbolically mark the American burnings of Newark and Fort Erie in Canada and the subsequent British retaliation via their burnings of Black Rock and Buffalo in America.

The burnings took place on both sides of the Niagara River during December, 1813. We propose to stage our events in the Decembers from 2010 to 2013 to encourage participant enthusiasm by timing our events close to the actual anniversary dates

The sites on the Canadian side will be explored by John Sek through his knowledge of what public and private lands may be available opposite the American sites for maximum contrast, while on the American side Riverside Park, Squaw Island and Broderick Park may be used, with the last located on the midsection of Bird Island, within easy viewing of the opposite bonfire on the Canadian side.

Many groups on both sides stand ready to provide the expertise on how to construct and contain a medium size bonfire, in our case defined as no more than one level or five feet high. These include service agencies, veterans associations, and the public affairs officers who organize and promote college football homecoming celebrations.

The bonfire mechanism was chosen because of its tie-in to the burning of villages during the war; it is a relatively inexpensive task using dried wood, matches and an accelerant as the main less expensive ingredients; it can serve to publicize and connect to other nearby community events and its attention getting qualities may draw people into other cross border fundraisers or festivals and the price of admission would be a contribution toward these more affordable bonfire ingredients.

The bonfires would be mounted on excavated concrete or mud pits about five feet by five feet square containing a fuel with accelerant, about one foot deep to confine and define the flames, using a cover of portable flat steel plates ¼" in thickness with slotted grooves to support the first layer of firewood upon which the rest of the bonfire will be built. This will also protect lawn or field areas, although in winter the grasses would be wet or snow covered. Bonfires are an attraction in any kind of weather. People can keep warm near them on the cold days we plan on using them. Suggestions have been made to use propane heaters, search lights or laser lights, but these may be better situated as promotional attractions preceding the bonfires, rather than as the main attraction, substituting for the bonfires, as the fire manifestation should be kept as naturalistic as the original, as the source of the property destruction.

The first year we would keep the number of bonfires limited, as we at that time only want a low key demonstration project, to obtain a sense of the planning and logistics involved, requiring no immediate

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outlay of money. As a trial run, we will get the learning experience to gage the project's community worthiness and develop the confidence needed to more successfully hold such an event when a more professional process will result. The number of initial attendees should be kept low allowing a more informal teachable moment. At this time we may use volunteers and have fire control agencies on standby, while developing practical, in-kind skills in fire creation and retardance.

Soon enough subsequent reenactments will have to recognize the problems inherent when any event becomes too popular, and receives media attention, encouraging widespread message advertising. These problems would take the form of crowd control, the need for a widespread publicity continuum, provisions for parking, having emergency medical personnel on standby, liability insurance coverage, sanitary stations, refreshments under tents, providing speakers for explanatory lectures, costumed docents leading tours among the sites, gift shop sales of complementing goods and establishing security bases involving traffic control and providing directions to the attending local residents and tourists.

Laser shows or simulated cannon firings may precede, accompany or follow the bonfires to remind participants artillery positions existed on both combatant sides of the Niagara River, providing both defense and offence to the burning of the villages. Those service groups desiring to be involved would be asked to submit a package deal plan outlining what they are prepared to provide and how they would handle the public interest response and resultant needs.

Having outlined our plans for holding War of 1812 commemorative bonfires, the Historic Preservation committee has requested the War of 1812 Binational Legacy Council study our proposal and with their approval consider our request for \$5,000. In seed money to fund this enterprise and allow us to integrate these plans in cooperation with public and private entities whose permission will be needed through permits and letters of support, in order to successfully and legally move forward.

With this thought in mind, the Historic preservation committee requests the cooperation of the Buffalo Fire Department, Fire Prevention and Safety unit in advising us of the best ways to plan, locate and execute these commemorative bonfire symbols of the War of 1812. We are prepared to adhere to whatever rules your department tells us will be necessary to safely hold this dramatic representation of the historic town burnings and in compliance with these regulations, ask your department's permission to implement these bonfire plans as outlined above, in accordance with whatever subsequent permits are to be appropriately issued.

We express our appreciation for your consideration of our proposal. Please so advise if you need any further information or exhibits from us.

Attachment: Map of the three bonfire sites on the American side within the City of Buffalo.

Sincerely yours,



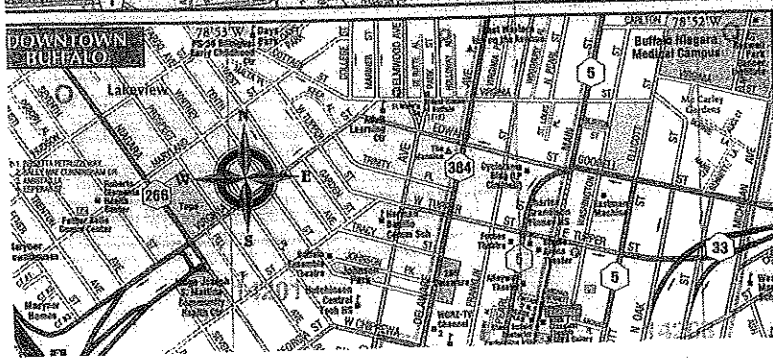
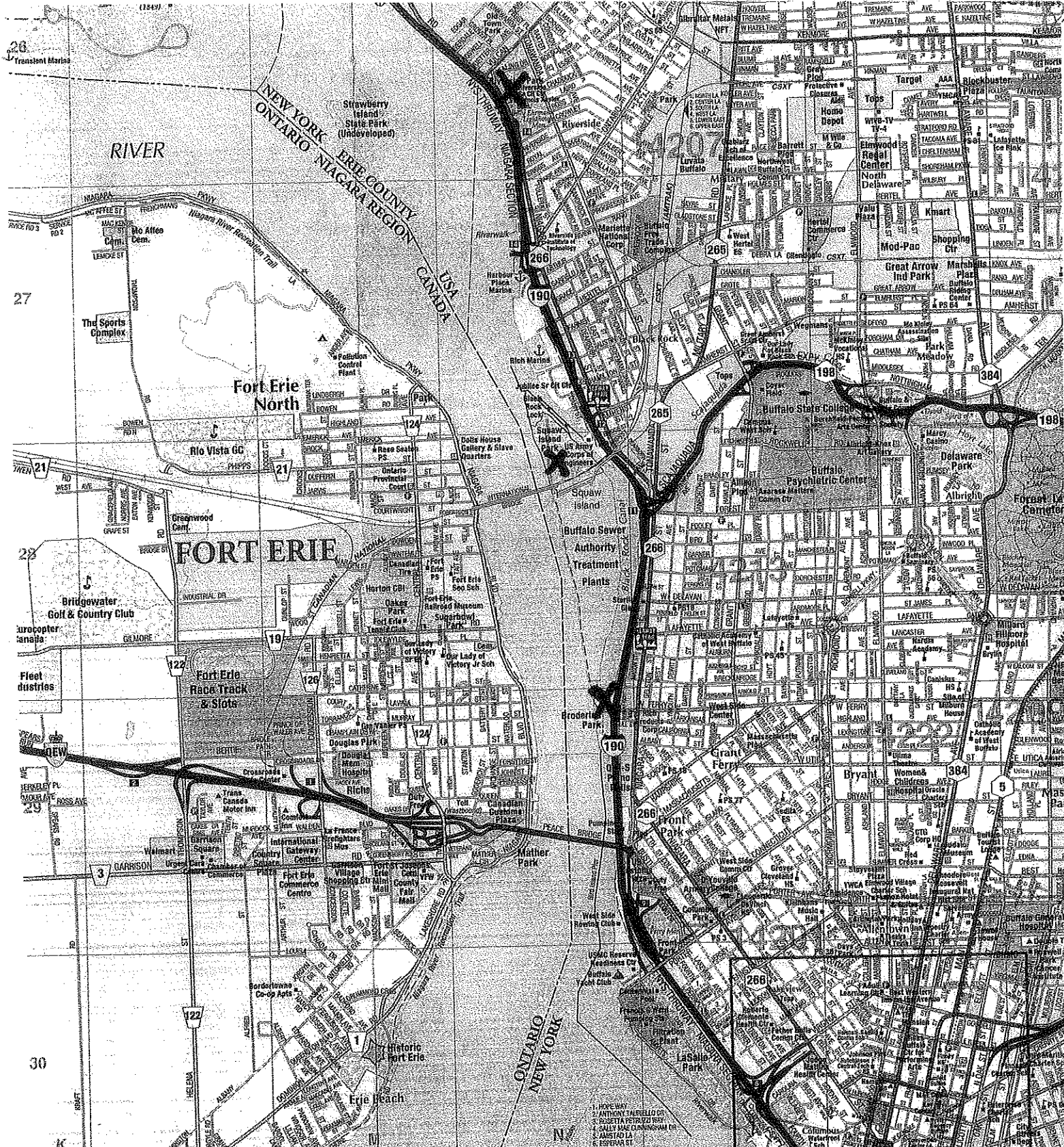
Warren F. Glover

Chair - BR/R GNPA Historic Preservation committee

Phone: (716) 836-2903

E-mail: [wglover246@yahoo.com](mailto:wglover246@yahoo.com)

REFERRED TO THE COMMITTEE ON LEGISLATION AND COMMISSIONER OF FIRE

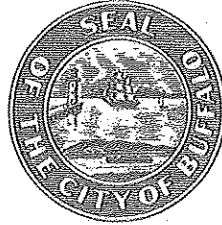


DOWNTOWN BUFFALO AREAS AND POINTS OF INTEREST	
STREET	GRID
Playway Theater	P-30
Bryant & Stratton College	P-30
Buffalo City Court	P-30
Buffalo City Hall	P-30
Buffalo Convention & Visitors Bureau	P-30
Buffalo Brimley Theatre	P-30
Buffalo Naval Park	P-30
Buffalo News, The	P-31
Buffalo Niagara Medical Campus	P-30
Buffalo Transportation	P-31
Pierce Arrow Museum	P-31
Convention Center	P-30
Corbett B.N.	P-31
Cyclorama Building	P-30
Downtown State Office Building	P-31
Dunbar Federal Building	P-30
Dunn Tire Park	P-31
ECC City Campus	P-31



## The Buffalo Common Council

MICHAEL P. KEARNS  
SOUTH DISTRICT COUNCIL MEMBER  
65 NIAGARA SQUARE, 1401 CITY HALL  
BUFFALO, NY 14202-3318  
PHONE: (716) 851-5169 ♦ FAX: (716) 851-4294  
E-mail: mkearns@city-buffalo.com

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TRANSPORTATION  
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MARTHA-ANN MURPHY  
KELLY M. KRUG  
RUSSELL C. WEAVER

## MEMORANDUM

TO: Gerald Chwalinski  
FROM: Councilmember Kearns  
DATE: November 8, 2010  
RE: M. Kless letter re Procedures on Civil Service Exams

I would like to file the attached information for the next Common Council meeting to be held on November 16, 2010.

Thank you.

*Michael P. Kearns*

REFERRED TO THE COMMITTEE  
ON CIVIL SERVICE.

"For the People"



125  
MICHAEL A. KLESS  
87 PAYNE AVE.  
BUFFALO, NY 14220  
10/30/10

Michael P. Kearns  
South District Common Council Member  
Room 1401  
City Hall  
Buffalo, NY 14202

Dear Mr Kearns:

It my understanding you are on the Civil Service Commission and you are the council member for my district.

I have a few problems - I have taken a lot of exams over the years at the City of Buffalo site, the Erie County site and the NYS site. I have been trained and worked as an exam proctor / monitor for NYS at the NYS exam site. -> What I saw today blew my mind, the people who were running the exams violated test security & testing procedure to include telling people which questions to answer - A LARGE part of the test is being smart enough to figure out what questions to answer and this ungraded part of the test was not given because of the conduct of people giving the exam.

This was so bad I have formally asked that the exams be voided and a retest scheduled along with having NYS teach the people in Buffalo how to give an exam.

I have enclosed a copy of my complaint - I think the Civil Service Committee should look into this.

I await your reply.

Sincerely Yours

  
Michael A. Kless

REFERRED TO THE COMMITTEE  
ON CIVIL SERVICE.

MICHAEL A. KLESS  
87 PAYNE AVE.  
BUFFALO, NY 14220  
10/30/10

126

NYS Dept. of Civil Service  
Attn: Nancy G. Groenwegen  
Commissioner  
Alfred E. Smith State Office Building  
Albany, NY 12239

Dear Ms. Groenwegen:

I took an NYS CS exam today administrated by the City of Buffalo.

If I could fill out a critical incident report on what happened to day I would!

I am formally asking that the exam I took and the other 5 or 6 exams that were given in the same test room be voided and the candidates be scheduled for a retest because of several major violations of test security by the persons proctoring the exams.

Test Date - 10/30/10  
Test Location - McKinley HS  
Test Room - Caft  
Locality - Buffalo

1st - with 3 or 4 different series being giving and several exams in some of those series - the "head" proctor read the candidates instructions to include which test plan each candidate was to use and specifically which questions to answer in that test plan (this was done for each and every test being biven)- the candidate instructions state VERY plainly that it is the responsibility of the person taking the exam to identify which questions to answer and the monitor can not help them - not only did the monitor help them they specifically told people which questions to answer. The series I took had 3 different test plans depending on title, at one point one of the assistant proctors had to tell people to calm down they were not answering 105 questions that was only for 1 test plan, this caused great confusion among people who have not taken tests before and this is a possibility people did the wrong questions because they were following his instruction. The head proctor did correct himself several times as he was giving these instructions however he was doing this for the people at the other end of the cafeteria and I could not hear the entire exchange between him and the candidates. But their seemed to be some confusion on what questions to answer.

2nd - After the exam booklets were passed out but before the exam started 1 man told the head proctor he left his glasses in the car and had to go get them, the head proctor was a nice guy and let him go. As far as I know he went alone to his car -> leaving an exam room and leaving the building and then coming back in and taking the test?? I understand being a nice guy but he should have made sure a monitor went with him to the car, from my vantage point I could see the test room door and the hall and I did not see anybody go with the man in question. I am not saying the man in question did anything wrong just telling the lack of test security.

3rd - We as a group were told to sign the admission slips, NOBODY ever checked ID - this was not a case of I did not see it happen, I never took my wallet out - anybody could have taken this exam for me or anybody else. If I am to be beat on an exam I at least want the person beating me to be the same person who gets the job!

4th - People were told to count the pages in the test booklets but they were not told to do it with out opening the test booklets, I saw a lot of people "counting" the pages in the test booklets with the booklets fully open and them reading the questions.

5th - in violation of rules - the exam notices were collected as the exam was started, it is my understanding having worked as a test proctor in a NYS test site that exam notices are NOT to be picked up until an exam has been completed and it is turned in with the rest of the paperwork

6th - When people were finished they were just walking up - several people walked up at the same time.

7th - When I turned in my test booklets after the exam the person taking the paperwork NEVER counted the pages in the test booklet I turned in.

I think based on the rules broken, lack of test security & the possibility the head proctor / monitor told people to answer the wrong question or created confusion on what questions to answer that ALL the test administered in the Cafeteria at McKinley High School today should be thrown out and a new test ordered and ALL costs to be covered by the Buffalo Civil Service Department.

I await your reply and any follow up questions you may have.  
Sincerely Yours

Michael A. Kless

PS: There were 4 people working in this room, not I objected to what I saw, not I objected to the person leaving the room alone, not I objected to the reading of which questions to answer. I think this ends any question this was an isolated incident and is a matter of business as usual. I can only wonder what other violation have happened but not reported because the candidates did not know the rules were being broken.

128  
MICHAEL A. KLESS  
87 PAYNE AVE.  
BUFFALO, NY 14220  
10/30/10

NYS Dept. of Civil Service  
Attn: Local Exam Division  
Alfred E. Smith State Office Building  
Albany, NY 12239

Dear Sir:

Please read the attached letter to Ms. Groenwegen. I again ask that the tests in question be destroyed and the candidates be retested because of multiple rule violations and failures in test security by the proctors / monitors.

I also ask that your division to a retraining of how to proctor an exam to those running the Buffalo Civil Service Office.

I also ask that you schedule the retest at the State Site so QUALIFIED personnel can proctor / monitor these exams and ALL upcoming exams until you have had time to reeducate the Buffalo Civil Service Department in how to give an exam - Additionally any extra costs to do this should be paid by the City of Buffalo Department of Civil Service and NOT passed on to the candidates and if a candidate can not make the retest date they be given the opportunity to retest on a different date because they did not cause this error.

I await your reply.

Sincerely Yours

Michael A. Kless

129  
MICHAEL A. KLESS  
87 PAYNE AVE.  
BUFFALO, NY 14220  
10/30/10

Buffalo Civil Service  
Room 1001  
City Hall  
Buffalo, NY 14202

Dear Sir:

I took an exam today - I saw several violations of test security and test procedure, as a result I have asked the NYS Dept. of CS to void todays tests and schedule a retest.

Yours

Michael A. Kless

# The Buffalo Common Council

**MICHAEL P. KEARNS**  
**SOUTH DISTRICT COUNCIL MEMBER**  
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 BUFFALO, NY 14202-3318  
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## CHAIRMAN

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## LEGISLATIVE ASSISTANTS

MARTHA-ANN MURPHY  
 KELLY M. KRUG  
 RUSSELL C. WEAVER

10 November 2010

Buffalo City Clerk  
 Gerald Chwalinski  
 1308 City Hall  
 Buffalo NY 14202

### **Re: Street Sign Changes**

Dear Mr. Chwalinski:

New guidelines for street signs and pavement markings are being mandated by the Federal Highway Administration and the US Department of Transportation. By 2018, the lettering and materials used for street name signs must be changed.

The Common Council filed a resolution calling for sharing of municipal services on May 13, 2008. The City of Buffalo has a sign making shop that is capable of producing street signage. The city can fabricate and sell signage to smaller towns and villages that presently outsource their sign making to companies outside of Western New York.

The Council is awaiting a response from the Department of Public Works Parks and Streets detailing pricing of this work.

Please file the attached item for further consideration at the next Common Council session to be held November 16, 2010.

Your assistance is greatly appreciated.

Sincerely,

Michael P. Kearns  
 South District Councilmember

**REFERRED TO THE COMMITTEE  
 ON LEGISLATION.**

Enclosure

LEG

*"For the People"*

27A

# Street Sign Changes Are a Gradual Process

by Leslie Wollack

Recent news reports from New York City highlighted some recent and not-so-recent changes in federal rules impacting street signs to improve readability.

Federal guidelines for governing street signs, pavement markings and all other standards for streets and roads open to public traffic are published in the Manual on Uniform Traffic Control Devices (MUTCD). Updates in 2000, 2003 and 2009 made significant changes in standards for street name signs impacting cities. <http://mutcd.fhwa.dot.gov/>.

The latest standards reflect updates on safety and are intended to enhance the ability of drivers to read signs more quickly, especially at night. The quicker a driver can read information from a sign, the less time they take from the road, according to

safety research.

According to new standards issued by the Federal Highway Administration of the U.S. Department of Transportation, the lettering and materials for street name signs, must be changed to reflect current research on safety.

The change garnering news headlines was a required change from street name signs with all capital letters to mixed case letters that has no deadline, according to the Federal Highway Administration, and can be done by cities whenever they would replace their street name signs due to normal wear and tear.

However, there is a 2018 deadline for changing street name signs to minimum letter heights, which was included in the update to the MUTCD in 2000 and updated in 2003. Cities need to have a replacement plan in place by 2012.

Many cities have been updating these new standards as part of another change included in the latest update of the MUTCD in January 2009.

A newer ruling on "retroreflectivity" for easier night viewing of street signs was adopted in late 2007 and went into effect in January 2008. Many cities are changing the lettering on their street signs as they comply with the newer ruling and when signs need to be replaced.

Agencies have until January 2012 to establish and implement a sign assessment or management method to maintain minimum levels of sign retroreflectivity. The compliance date for regulatory, warning, and ground-mounted guide signs is January 2015. For overhead guide signs and street name signs, the compliance date is January 2018.

The retroreflectivity rule

was requested by Congress in 1993 to make street and highway signs more visible at night.

The American Public Works Association has been working with its members for several years on the implementation of these rules and has the following resources available online:

**Sign Retroreflectivity: What is it and Why Should I Care (Retroreflectivity Part 1)** - [www.apwa.net/events/eventdetail.asp?ID=5217](http://www.apwa.net/events/eventdetail.asp?ID=5217) (broadcast Oct. 15, 2009 and rebroadcast Feb. 11, 2010)

**Sign Retroreflectivity: Best Management Practices for How to Implement (Retroreflectivity Part 2)** - [www.apwa.net/events/eventdetail.asp?ID=5220](http://www.apwa.net/events/eventdetail.asp?ID=5220) (broadcast Nov. 5, 2009 and rebroadcast Feb. 25, 2010).

**MUTCD Revisions: Changes Every Local Community Needs to Know** - [www.apwa.net/events/eventdetail.asp?ID=5233](http://www.apwa.net/events/eventdetail.asp?ID=5233)

Information available on the Federal Highway Administration website includes:

[http://safety.fhwa.dot.gov/roadway\\_dept/night\\_visib/policy\\_guide/fhwa07020/](http://safety.fhwa.dot.gov/roadway_dept/night_visib/policy_guide/fhwa07020/)  
[www.fhwa.dot.gov/publications/research/safety/09030/](http://www.fhwa.dot.gov/publications/research/safety/09030/)

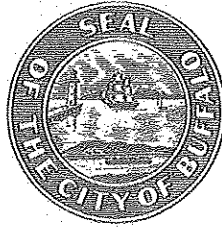
Finally, the Federal Highway Administration has prepared a sign retroreflective toolkit at [www.fhwa.dot.gov/retro](http://www.fhwa.dot.gov/retro). Copies can be ordered online. The toolkit provides information to assist smaller and medium sized agencies to meet the new requirements and consists of a compact disc and guidebook that helps agencies establish a maintenance program and set a budget for updating their traffic signs.

For further information, contact your state department of transportation. You can test your knowledge about street signs at <http://mutcd.fhwa.dot.gov/Signs/index.htm>.

Have something to say? Write a letter to the editor or share your sustainability stories. Details: For more information about

# The Buffalo Common Council

**MICHAEL P. KEARNS**  
 SOUTH DISTRICT COUNCIL MEMBER  
 65 NIAGARA SQUARE, 1401 CITY HALL  
 BUFFALO, NY 14202-3318  
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MARTHA-ANN MURPHY  
 KELLY M. KRUG  
 RUSSELL C. WEAVER

## MEMORANDUM

TO: Gerald Chwalinski  
 FROM: Councilmember Kearns  
 DATE: November 8, 2010  
 RE: Articles re: Tearing down Skyway )

I would like to file the attached information for the next Common Council meeting to be held on November 16, 2010.

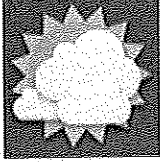
Thank you.

REFERRED TO THE SPECIAL COMMITTEE  
 ON WATERFRONT DEVELOPMENT



# BuffaloNewscom

Last update: October 31, 2010, 5:23 PM



46°

ForecastRadar



## Urban expert has easy fix: Raze Skyway

By **Donn Esmonde**

Published: October 31, 2010, 12:00 AM

Updated: October 31, 2010, 5:23 PM

I do not know who else we have to hear it from, or who better. He has seen the world, from Paris to Prague, from Beijing to Buffalo. He has spent a professional lifetime learning what works for cities. He did it from the inside, as mayor of Milwaukee — where he inherited a petrified political culture a lot like our City Hall. Now he does it from the outside, as head of Congress for the New Urbanism, a posse of urban physicians who prescribe remedies for city ills.

John Norquist is NBA-tall, lean and so bright he sometimes seems bored with the rest of us. He has, for reasons professional and personal (his wife is from East Aurora), passed through Buffalo since 1972. He looks at the city's waterfront and sees not just what is, but what should be. 134

When Norquist calls our vast, near-vacant stretch of waterfront south of downtown "one of the best development parcels on all of the Great Lakes," there is no one to better believe. (Take a look at "Buffalo's Waterfront" at [video.buffalonews.com](http://video.buffalonews.com)).

He and I sat down Thursday at Dug's Dive restaurant, one of the few signs of life on Buffalo's scrub-brush lakefront. To our right was a large, empty warehouse. Beyond it was hundreds of acres of uninhabited waterfront land within sight of downtown. Lack of easy road and bridge access, and decades of dismal stewardship by our transportation authority, has kept vacant the community's most valuable real estate.

Two remedies: Put up a cross-channel lift bridge, maybe near HSBC Arena, to connect downtown to the outer harbor. Take down the development-choking Skyway.

Norquist said a lift bridge—a\$7 million down payment just got made on it —kicks open the door.

"It would open this land up to hundreds of millions of dollars in development," said Norquist, who was in town for a development forum. "Developers will come down from Toronto."

The other half of the equation: Take down the waterfront-killing Skyway.

Norquist counted Buffalo among the biggest victims of 1950s-era master builder Robert Moses. His philosophy of high-speed highways cutting through cities—or along their waterfronts— were like knives carving up a torso. The Niagara Thruway and the Skyway are classic cases in point.

"Robert Moses' dead gray hands are still strangling the city of Buffalo," Norquist said. "Your entire waterfront is separated by highways. It's ridiculous."

The worst of it is the elevated Skyway, a development-killing monster hovering like a guillotine over the waterfront.

"The Skyway has been suppressing real estate values ever since it was built," Norquist said. "The blight is so apparent. It is not a good place for a freeway, and it is not

needed.”

There is a growing chorus, led by Rep. Brian Higgins, for the state Department of Transportation to dismantle the Skyway. The few minutes it saves in commute time is not worth the price we pay. A lift bridge should hasten its demise.

“It is a maintenance nightmare that will eventually come down,” Norquist said. “You might as well do it sooner than later . . . The main opposition to it is bureaucratic resistance.”

There are reasons why our near-downtown lakefront looks like a vast vacant lot. It is not by chance or accident. The problems, to an urban physician like Norquist, are as obvious as any fractured skull or broken arm.

So is the remedy. Toronto is taking down the Gardiner Expressway. New York City demolished the riverfront-killing West Side Highway. San Francisco jettisoned the elevated Embarcadero. And on and on. The sooner we wise up, the better.

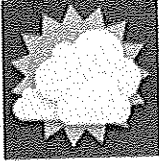
Which begs the question Norquist asks: What are we waiting for?

*desmonde@buffnews.com*

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# BuffaloNews.com

Last update: October 28, 2010, 6:47 AM



46°

Forecast Radar

## Urban guru says tear down Skyway

By **Mark Sommer**

Published: October 28, 2010, 12:00 AM

Updated: October 28, 2010, 6:47 AM

An urban planning expert said it's time for Buffalo to tear down the Skyway, and he believes building an outer harbor bridge will increase that likelihood.

John Norquist, president of the Congress for the New Urbanism and former mayor of Milwaukee, said Wednesday that the mile-long Skyway is the main stumbling block that is keeping Buffalo from unlocking the real estate market and reconnecting the city with the waterfront.

"Buffalo could be the most beautiful port city on the American side of the Great Lakes," Norquist said.

"Compare Buffalo to Duluth, to Chicago, Milwaukee, Cleveland, Erie. If you got rid of the Skyway, and let that area around Fuhrmann Boulevard develop with an intense urbanism and highly connected street grid, coming almost right up to the water, it could be fabulous."

Norquist will speak today in the auditorium of the Burchfield Penney Art Center at 8:30

a. m., then at 10:45 a. m. on a panel including developers Rocco Termini and Carl Montante Jr., Kathryn Foster of the UB Regional Institute and Jacques Gourguechon

of Camiros, an urban design company consulting with the City of Buffalo on zoning issues.

"It's a good time to make the decision and to make it clear to the next governor and the state Department of Transportation that the Skyway has to go," he added.

Norquist, who said Buffalo needs to embrace change, wrote about the approach he took as mayor of Milwaukee from 1988 to 2004 in "The Wealth of Cities."

"I think the City of Buffalo, which bears a lot of similarities in its attitudes and characteristics with Milwaukee, needs to make some breaks with the past and have a more positive attitude about itself," he said. "It's got to be proud to be a city, and it needs to erase some of the past mistakes."

South Council Member Michael

P. Kearns said he wants to see a cost study done on tearing down the Skyway. A study published in Buffalo Skyway Management in 2008 by Bergmann Associates found preserving the elevated span for 20 years would cost \$42.7 million — money, Kearns said, that could be much better spent on alternatives.

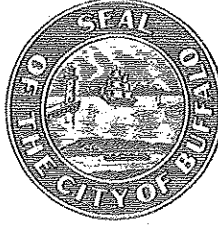
"The Skyway is costly, unpopular and dangerous, an overall detriment to the future of developing our waterfront," Kearns said.

Norquist said that besides funding, the biggest obstacle to taking down the Skyway is the state Department of Transportation.

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## The Buffalo Common Council

MICHAEL P. KEARNS  
SOUTH DISTRICT COUNCIL MEMBER  
65 NIAGARA SQUARE, 1401 CITY HALL  
BUFFALO, NY 14202-3318  
PHONE: (716) 851-5169 ♦ FAX: (716) 851-4294  
E-mail: mkearns@city-buffalo.com

CHAIRMAN

FINANCE  
TRANSPORTATION  
WATERFRONT DEVELOPMENT

COMMITTEES

BUDGET  
BURA  
CIVIL SERVICE  
CLAIMS

LEGISLATIVE ASSISTANTS


MARTHA-ANN MURPHY  
KELLY M. KRUG  
RUSSELL C. WEAVER

## MEMORANDUM

TO: Gerald Chwalinski

FROM: Councilmember Kearns

DATE: November 8, 2010

RE:  Waterfront Community Development Agreement

I would like to file the attached information for the next Common Council meeting to be held on November 16, 2010.

Thank you.

*Michael P. Kearns*



CITY OF BUFFALO  
BYRON W. BROWN  
MAYOR



139

October 14, 2010

Dear Seneca Street Business Owner:

Re: Waterfront Community Development Agreement

I am writing this letter to inform you of the Waterfront Community Development Agreement. As you likely have read or seen in the media, Erie Canal Harbor Development Corporation ("ECHDC") wants to purchase land from the City of Buffalo for the continuing development of Buffalo's waterfront with the Canal Side Master plan.

In exchange for the land, I negotiated with ECHDC to deposit **\$1,000,000** into a **Waterfront Neighborhood Economic Development and Preservation Fund** for your neighborhood business district and in total \$10 million citywide.

The purpose of the Waterfront Neighborhood Economic Development and Preservation Fund is to enhance your business district. Money in the fund can be used for the following purposes:

- Business loans and grants;
- Signage and storefront improvements;
- Security enhancements;
- Parking improvements;
- Streetscape upgrades (e.g., lighting, planters, street furniture, trash receptacles);
- Historic preservation activities;
- Installation and rehabilitation of public art.

My intention is that **your business district will set the priorities** for the expenditure of this money. To ensure that your voice is heard, I will call a public meeting so that the Board that is overseeing the expenditure of this money will hear your voice.

At this time, however, the \$1,000,000 for your business district **is only a possibility and not a reality**. The Common Council has yet to vote on this proposal. If you feel that this initiative will benefit your community, I encourage you to **contact your councilmember** and share your view on this extraordinary opportunity for your business district.

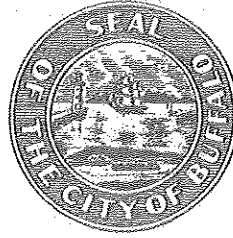
Sincerely,

Byron W. Brown  
Mayor

REFERRED TO THE COMMITTEE  
ON COMMUNITY DEVELOPMENT.

## The Buffalo Common Council

MICHAEL J. LOCURTO  
DELAWARE DISTRICT COUNCIL MEMBER  
65 NIAGARA SQUARE, 1405 CITY HALL  
BUFFALO, NY 14202-3318  
PHONE: (716) 851-5155 ♦ FAX: (716) 851-4553  
E-mail: mlocurto@city-buffalo.com

LEGISLATIVE ASSISTANTS

PAUL ALAGNA  
BRADLEY K. HAMM

140  
CHAIR  
COMMUNITY DEVELOPMENT

COMMITTEES

LEGISLATION  
FINANCE  
BUDGET

BOARDS

BURA

November 10, 2010

Gerald Chwalinski, City Clerk  
1302 City Hall  
Buffalo, New York 14202

Re: Three-phase plan for revitalization of Statler property

Dear Mr. Chwalinski:

Please file the attached item for further discussion at the next Common Council session to be held November 16<sup>th</sup>, 2010.

Thank you in advance for your assistance in this matter.

Sincerely,

MICHAEL J. LOCURTO  
Delaware District Councilmember



# PRESERVATION

## *Buffalo Niagara*

*Building on the past for our FUTURE*

FOR IMMEDIATE RELEASE  
Contact: Judi Griggs  
716.939.0655

### **PRESERVATION BUFFALO NIAGARA BACKS DEVELOPER'S STATLER PLAN Three-phase Statler solution creates innovative "blended partnership"**

BUFFALO, NY (November 10, 2010) – Leaders from Preservation Buffalo Niagara today announced their support of a plan detailed by the leadership of Statler City LLC for the long-term revitalization of the historic Statler property at 107 Delaware Avenue.

Both organizations advanced a "blended partnership" concept of community, philanthropic and government support to address the immediate "first phase" needs to stabilize the building's exterior and address specific public safety issues.

"The Statler is a nationally significant building much beloved by Buffalonians. Preservation Buffalo Niagara is pleased to announce today our support of an effort to revive this vital building" stated Henry McCartney, executive director of Preservation Buffalo Niagara. "The principals of Statler City LLC have done their homework, carefully studied the building and come up with a feasible plan. It is now time to show them our support and move forward with this effort to save the Statler"

Mark D. Croce, a principal of Statler City, said the decision to make an offer to buy the Statler was both a practical and emotional decision. "The Statler is an integral part of our community, not simply for her historical and architectural significance, but for the role she has played for generations in this community," explained Croce. "I want my son to be able to experience the Statler as my father and his father did before him."

The three phases delineated by Statler City attorney Robert Knoer in a presentation to community leaders are:

**PHASE ONE :** Use blended funds to secure the exterior to allow for the removal of the fence and boarded up façade and to repair the roofs to prevent further deterioration.

**PHASE TWO:** Use private funds to revitalize the first floor and mezzanine area into mixed use space that would allow for a revolving infusion of cash from banquet and small retail operations. This money will be used to pay the required operating expenses of the building pending more extensive redevelopment.

(more)

Ad one/ statler

**PHASE THREE:** Allow for the remaining tower space to grow organically as the local market demands into hotel, residential or if needed office space.

As part of that longer term revitalization, a connection to the existing Buffalo Convention Center across Franklin Street is proposed. This allows the community to get a benefit back for their investment in stabilization, Knoer explained. The ability to finally realize a larger Convention Center will lead to more convention dollars, bed tax and sales tax revenues, and an infusion of out of the region dollars being brought into the local economy, he said.

"We have advanced the concept of tying into the Convention Center to allow for their long desired expansion. This provides a real public benefit in return for the stabilization investment. A new 50,000 square foot exhibition space could connect the center to the elegant meeting and banquet space of the Statler," he said.

Knoer added that the site for the convention center was originally selected for its proximity to the Statler, and the Statler was run as a Convention Center itself. A final decision to expand the Center would have to be up to the Convention and Visitors Bureau and City and County officials.

"We're interested in working with governmental entities and even other developers in using the Statler for creative community solutions," Croce said.

Preservation Buffalo Niagara has proposed an innovative funding mechanism for the \$5 million necessary to complete stage one and bring the Statler back to an active community role.

"We believe this investment can and should be shared by a variety of community, government and philanthropic sources, a combination that is more than a traditional public /private partnership, one that establishes blended partnership," explained Catherine Schweitzer, chair of Preservation Buffalo Niagara.

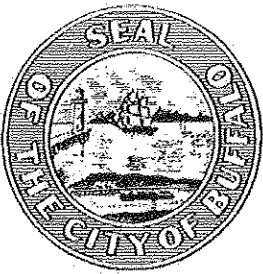
"Often times in our community we look for some outsider to ride in on a white horse and rescue us from our challenges. We have the capacity and commitment in our community to answer this challenge together," she said. Details as to how others can support the Statler project will be announced after the sale of the Statler closes.

Preservation Buffalo Niagara is a membership organization with more than 1000 individual and family members, plus civic, foundation and corporate supporters. Its' mission is to identify, preserve, protect, promote and revitalize historically architecturally significant sites, structures, neighborhoods, commercial districts and landscapes in Western New York.

###

**REFERRED TO THE COMMITTEE  
ON COMMUNITY DEVELOPMENT.**

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# Common Council

## Legislative Staff

City of Buffalo, NY

*Chief of Staff*  
James S. Pajak 148  
*Senior Legislative Assistant IV*  
Kevin M. Linder  
*Senior Legislative Assistants*  
Mark J. Jaskula  
William B. Licata  
Julia A. Paul  
Melissa Sanchez-Fernandez  
Richard Wall  
*Legislative Aide*  
James N. Jackson

November 16, 2010

Gerald Chwalinski, City Clerk  
1302 City Hall  
Buffalo, NY 14202

RE: Information requested by Common Council Members at the November 8, 2010  
Capital Improvement Program Workshop

Dear Mr. Chwalinski:

Please file the attached information submitted to our staff by email by the Department of Public Works, in response to questions raised by Common Council members at the CIP Workshop referenced above.

Thank you for your assistance in this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "James S. Pajak", is written over a faint, larger version of the same signature.

JAMES S. PAJAK  
Common Council Chief of Staff

REFERRED TO THE SPECIAL  
COMMITTEE ON BUDGET

BUDGET

65 Niagara Square - Room 1413  
Buffalo, New York 14202-3318  
Phone: (716) 851-5105  
Fax: (716) 851-4234

29B  
RF

Linder, Kevin

**From:** Rabb, Andrew R.  
**Sent:** Friday, November 12, 2010 9:19 AM  
**To:** Linder, Kevin  
**Cc:** Stepniak, Steve  
**Subject:** FW: Information requested by CM's at Mon 11/08/10 Capital Budget Workshop

**Categories:** Red Category

Sorry, I forgot to include Kevin in my e-mail.

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**From:** Rabb, Andrew R.  
**Sent:** Friday, November 12, 2010 9:16 AM  
**To:** Stepniak, Steve; Schollard, Joseph; Nosworthy, Raymour P.  
**Cc:** Merlo, Peter  
**Subject:** RE: Information requested by CM's at Mon 11/08/10 Capital Budget Workshop

Parks and Recreation information below. Please let me know if you have further questions.

Thank you.

Andrew R. Rabb  
Deputy Commissioner  
City of Buffalo  
Department of Public Works, Parks & Streets  
Division of Parks & Recreation  
65 Niagara Square, 505 City Hall  
Buffalo, New York 14202-3304  
(716) 851 - 9672

A list of Parks Vehicles & Equipment that are anticipated to receive funding pursuant to the following 2011 request:

PRKS 11004 Park Vehicles & Equipment (Parks)	\$ 535,000
(1) Rollpack Roller – sit down lawn and greens rolling machine used on golf courses and athletic fields = \$50,000	
(1) Aerial Lift Bucket Truck – to replace one of our two Forestry bucket trucks, both are over 10 years old = \$200,000	
(3) Ford F150 pick-up trucks – to replace existing aging fleet, \$20,000/each = \$60,000	
(5) Ford F 450 small dump trucks – to replace existing aging fleet for Parks & Pools maintenance and to pull stump grinder, \$45,000/each = \$225,000	

A summary of the current status of all projects funded pursuant to the following 2010 adopted Capital Budget item:

DCCM 0919 City Wide Parks System	\$ 894,232
Installation of Playground Equipment Citywide: \$410,000 – contract bids were opened November 10, 2010. Equipment will be purchased under separate contract by mid January for installation over winter/spring 2011.	
Replace picnic shelters with grills in disrepair: \$200,000 – will be bid this winter for installation in spring of 2011	
Replace basketball backboard units & mill/overlay/paint court surfaces in disrepair: \$280,000 – will be bid this winter for installation in spring of 2011.	

**From:** Stepniak, Steve  
**Sent:** Tuesday, November 09, 2010 5:03 PM  
**To:** Schollard, Joseph; Rabb, Andrew R.; Nosworthy, Raymour P.  
**Cc:** Merlo, Peter  
**Subject:** FW: Information requested by CM's at Mon 11/08/10 Capital Budget Workshop

Andy and Joe please provide info

---

**From:** Linder, Kevin  
**Sent:** Tuesday, November 09, 2010 12:15 PM  
**To:** Stepniak, Steve  
**Cc:** Schollard, Joseph; Merlo, Peter; Pajak, James  
**Subject:** Information requested by CM's at Mon 11/08/10 Capital Budget Workshop

Commissioner Stepniak,

Thank you for attending yesterday afternoon's Common Council Capital Budget Workshop. Based upon discussions at yesterday's meeting, the Common Council respectfully requests that you provide the following information to assist in their Capital Budget and Capital Improvement Program review:

A list of Community Centers that are anticipated to receive funding pursuant to the following 2011 requests:

BLDG 1023	Community Center HVAC & Mechanical Upgrades (Buildings & Facilities)	\$ 197,950
BLDG 1024	Community Center Electrical Upgrades (Buildings & Facilities)	\$ 133,750
BLDG 1025	Community Center Roof Replacements (Buildings & Facilities)	\$ 230,050

A list of Citywide Buildings that are anticipated to receive funding pursuant to the following 2011 requests:

BLDG 11031	City-wide Building Inspection & Needs Assessment (Buildings & Facilities)	\$ 535,000
BLDG 11032	City-wide Building Improvements (includes Lanigan Center Improvements)	\$ 642,000

A list of Parks Vehicles & Equipment that are anticipated to receive funding pursuant to the following 2011 request:

PRKS 11004	Park Vehicles & Equipment (Parks)	\$ 535,000
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A summary of the current status of all projects funded pursuant to the following 2010 adopted Capital Budget item:

DCCM 0919	City Wide Parks System	\$ 894,232
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Thank you in advance for your assistance with this request.

Best Regards,

Kevin

**Kevin M. Linder**  
**Sr. Legislative Assistant IV**  
**City of Buffalo Common Council**  
1413 City Hall  
65 Niagara Square  
Buffalo, NY 14202



00036

**Common Council**  
**Legislative Staff**  
**City of Buffalo, NY**

*Chief of Staff*  
James S. Pajak  
*Senior Legislative Assistant IV*  
Kevin M. Linder  
*Senior Legislative Assistants*  
Mark J. Jaskula  
William B. Licata  
Julia A. Paul  
Melissa Sanchez-Fernandez  
Richard Wall  
*Legislative Aide*  
James N. Jackson

November 9, 2010

Gerald Chwalinski, City Clerk  
1302 City Hall  
Buffalo, NY 14202

RE: CCP #27 Mar 2, 2010 - D. Franczyk (State Audit of the City's Elevator Inspections)

Dear Mr. Chwalinski:

Please file the attached report prepared by the New York State Comptroller's office regarding the Audit of the City of Buffalo's Elevator Inspections

Thank you for your assistance in this matter.

Sincerely,

A handwritten signature in dark ink, appearing to read "James S. Pajak".

JAMES S. PAJAK  
Common Council Chief of Staff

RECEIVED AND FILED

65 Niagara Square - Room 1413  
Buffalo, New York 14202-3318  
Phone: (716) 851-5105  
Fax: (716) 851-4234

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THOMAS P. DiNAPOLI  
COMPTROLLER

STATE OF NEW YORK  
**OFFICE OF THE STATE COMPTROLLER**  
110 STATE STREET  
ALBANY, NEW YORK 12236

146  
STEVEN J. HANCOX  
DEPUTY COMPTROLLER  
DIVISION OF LOCAL GOVERNMENT  
AND SCHOOL ACCOUNTABILITY  
Tel: (518) 474-4037 Fax: (518) 486-6479

September 24, 2010

Honorable Byron Brown, Mayor  
Members of the Common Council  
City of Buffalo  
201 City Hall  
Buffalo, New York 14202

Report Number: S9-10-15

Dear Mayor Brown and Members of the Common Council:

One of the Office of the State Comptroller's primary objectives is to identify areas where local government officials can improve their operations and provide guidance and services that will assist them in making those improvements. Our goals are to develop and promote short-term and long-term strategies to enable and encourage local government officials to reduce costs, improve service delivery, and to account for and protect their entity's assets.

In accordance with these goals, we conducted an audit of six cities throughout New York State. The objective of our audit was to determine whether local governments are ensuring that all elevators and related equipment<sup>1</sup> are being properly inspected and tested,<sup>2</sup> and qualified elevator inspectors perform the inspections in accordance with Code. We included the City of Buffalo (City) in this audit. Within the scope of this audit, we examined the Cities policies and procedures, and reviewed the enforcement of elevator inspections for the period January 1, 2009 to March 10, 2010.

This report of examination letter contains our findings and recommendations specific to the City of Buffalo. We concluded that the City monitors and enforces inspections of the City's elevators and related equipment. City officials' comments appear in Appendix A. At the completion of our audit of the six cities, we prepared a global report that summarizes the significant issues we identified at all of the cities audited.

### Summary of Findings

The City of Buffalo monitors and enforces the inspection of all elevators and related equipment in the City of Buffalo.

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<sup>1</sup> Escalators, dumbwaiters and lifts are considered related equipment.

<sup>2</sup> Periodic inspections include testing procedures.

## Background and Methodology

The City of Buffalo is located in Erie County, covering approximately 42 square miles, and has approximately 292,000 residents. The City's 2009 adopted budget<sup>3</sup> totaled approximately \$494 million.

The City is governed by a nine-member Common Council (Council). The Mayor is the chief executive officer and is responsible, along with other administrative staff, for the day-to-day management of the City. One of the primary functions of the City's Department of Economic Development, Permit and Inspection Services (Department) is to streamline permitting, licensing, and inspections. This responsibility includes the oversight of elevators and related equipment. This responsibility of the enforcement of elevator inspections within the City is carried out by the Supervisor of Elevator Inspections.

To complete our objective, we interviewed staff, and examined records to get an understanding of the internal controls in place over the enforcement of elevator inspections in the City. We performed on-site visits to 12 City building owners to review elevator and related equipment inspection documentation for the period January 1, 2009 to March 10, 2010.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

## Audit Results

Enforcement of Inspections – The New York State Division of Code Enforcement and Administration, Section 606.1 requires that all elevators, dumbwaiters and escalators be maintained to safely carry all imposed loads, operate properly, and be free from physical and fire hazards. In addition, the Code requires local governments to enforce these codes and ensure that property owners meet set schedules for inspections and tests. In order for City officials to monitor and enforce the inspection requirements, they must first establish a system to identify and track the elevators and related equipment in the City. It is also essential that the internal controls include procedures for the City to enforce the Code by establishing methods of recourse for dealing with instances of non-compliance. In order to foster compliance, these procedures must be conveyed to the individuals that operate elevators and related equipment in the City. The Code also requires that the City maintain records of inspections, and inspections be on display at all times within the elevator or attached to the escalator or dumbwaiter; or the certificate may be available for public inspection in the office of the building operator. The certificates need to have enough information for the public and the City to be able to determine whether the inspection and/or tests performed complied with the Code. Qualified Elevator Inspectors (QEI) that perform inspections and/or witness tests should either be employed or authorized by the City.

We found that the City monitors and enforces the inspection of elevators and related equipment in the City. The City has a system in place to inventory and track all elevators and related

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<sup>3</sup> The City's fiscal year is July 1 through June 30.



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equipment subject to inspection and testing requirements. Independently performed inspections and tests are tracked and followed up on by City personnel. The City has employed a QEI, the Supervisor of Elevator Inspections (Supervisor), to manage the enforcement of inspections. The Supervisor has authorized independent, licensed QEIs to perform the inspections of elevators in the City, which has the legal authority to require that property owners correct violations. As a result, City officials have taken steps to further public safety by ensuring that elevators in the City are being inspected, including City owned buildings.

The Supervisor routinely sends out semi-annual letters to notify property owners 60 days prior to inspections being due. Building owners select licensed maintenance contractors to maintain their elevators from the approved list of contractors provided by the City. Annual certificates of operation are issued to the property owners after third party inspections are performed by authorized QEIs. The City has collected about \$80,000 in revenues from the issuance of elevator operating certificates, elevator maintenance company and elevator inspection service fees, installation and modernization permits, and code violations.

In February, 2010, we visited 12 building owner/managers<sup>4</sup> in the City to test compliance with the Code. Our sample included 56 buildings with 197 lift devices, including 178 elevators (165 passenger and 13 freight) and eight escalators and 11 other lift devices. All 12 owners were able to provide the required inspection documentation and were in compliance with Code. This includes the 61 City-owned lift devices. The Supervisor had confirming documentation on all of the field inspections that we tested.

When required inspections are performed and the City enforces the Code, public safety is enhanced.

If you have any further questions, please contact Ann Singer at (607) 721-8310.

Sincerely,

Steven J. Hancox  
Deputy Comptroller  
Office of the State Comptroller  
Division of Local Government  
and School Accountability

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<sup>4</sup> In the event a certain building had multiple buildings with the same owner, we included all buildings and elevators.

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## **APPENDIX A**

### **RESPONSE FROM CITY OFFICIALS**

The City officials' response to this audit can be found on the following page.



CITY OF BUFFALO  
DEPARTMENT OF ECONOMIC DEVELOPMENT,  
PERMIT & INSPECTION SERVICES  
OFFICE OF THE COMMISSIONER



BYRON W. BROWN  
Mayor

JAMES COMERFORD, Jr.  
Acting Commissioner

June 8, 2010

Office of the State Comptroller – Regional Office  
Patrick Carbone, Chief Examiner  
State Office Building – Room 1702  
44 Hawley St.  
Binghamton, NY 13901-4417

Dear Mr. Carbone:

I am in receipt of draft report #S9-10-15 issued in May 2010, regarding the audit recently conducted of the City of Buffalo Elevator Inspections office. In my opinion, the audit was very thorough and the auditors were professional and courteous. I am in agreement with the findings and results listed in the report.

If we can be of any assistance in the future, please don't hesitate to contact us.

Sincerely,

James Comerford, Jr., Acting Commissioner  
Economic Development, Permit & Inspection  
Services

JC/sr

CC: Mayor Byron Brown, City of Buffalo  


## Hydraulic Fracturing

Hydraulic fracturing (a.k.a hydro-fracking, or fracking) is a method of natural gas extraction that results in the creation of fractures within rocks that aids in the extraction process. It is done by injecting a combination of water, chemicals, and proppant (something that keeps the fractures open, or "propped"... usually sand) to create and maintain fractures within the rock to facilitate in the withdrawal process. 150

Hydraulic fracturing is currently federally unregulated by the Clear Air Act, Safe Drinking Water Act, Clean Water Act, and CERCLA (Superfund) as a result of the passage of the Energy Policy Act of 2005.

An excerpt from the Energy Policy Act of 2005:

### "SEC. 322. HYDRAULIC FRACTURING.

Paragraph (1) of section 1421(d) of the Safe Drinking Water Act (42 U.S.C. 300h(d)) is amended to read as follows:

'(1) UNDERGROUND INJECTION.—The term 'underground injection'—

'(A) means the subsurface emplacement of fluids by well injection; and

'(B) excludes—

'(i) the underground injection of natural gas for purposes of storage; and

'(ii) the underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities.'"

The New York City Department of Environmental Protection conducted a study in which the Final Impact Assessment Report's summary contained the following:

- "Widespread... fracking will permanently and irreversibly compromise... geological formation[s]" that help isolate near-surface freshwater from highly saline waters of deeper formations
- Increased likelihood of migration of hazardous chemicals into groundwater/watersheds/reservoirs/etc.
- Fracking will "likely be accompanied by the gradual dispersion of low levels of toxic chemicals into the environment and potentially the water supply via multiple transport pathways"
- Water withdrawal "could significantly impact commitments for water supply and habitat protection"
- Flowback and produced water (resulting from the fracking process) "will produce an industrial-strength waste stream characterized by exceptionally high concentrations of a wide range of substances with the potential for adverse health and water quality effects".

It was concluded that these as well as other adverse effects could be expected.

---

Some of your fellow Western New York residents are working to fight fracking. Come join us:

12:00 Noon

Every second and fourth Sunday of every month

Lafayette Presbyterian Church

875 Elmwood Ave. [parking lot door]

Buffalo, NY

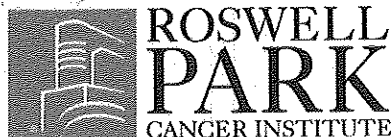
REFERRED TO THE COMMITTEE  
ON LEGISLATION.

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cm Smith

00038

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Elm & Carlton Streets | Buffalo, NY 14263  
716-845-2300 | [www.roswellpark.org](http://www.roswellpark.org)  
E-mail: [askrpai@roswellpark.org](mailto:askrpai@roswellpark.org)

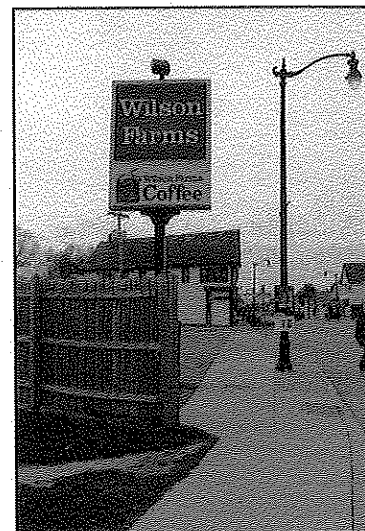
4 UNDERSTAND PREVENT  
& CURE CANCER

October 20, 2010

Honorable Richard A. Fontana  
Common Council Member, Lovejoy District  
1414 City Hall  
Buffalo, NY 14202

Dear Council Member Fontana:

I am sharing photos taken at a local convenience store on Genesee Street and Humason Avenue in your district on October 18th. Cigarette billboards attached to a City lamp pole is violation of the Master Settlement Agreement and the City's sign codes and is clearly illegal. However, this kind of marketing is exactly what the tobacco companies will continue to do unless we enforce rules for responsible marketing as Councilman Demone Smith has proposed in the Responsible Tobacco Retailing Act (RTRA). In the hearing held back in June on this proposed law representatives from Wilson Farms claimed that their stores adhere to the laws and responsibly market tobacco products. Pictures speak louder than words. No doubt the owners of this store will happily remove the illegal sign when it is brought to their attention. However, we can't waste our time one sign and one violation at a time. We need to adopt a comprehensive plan to clean up tobacco product marketing and have a plan to pay for real enforcement. That is exactly what the RTRA does.



During the summer, members of Buffalo Common Council have been bombarded with visits, letters and charts attacking the RTRA from the Altria Group, Inc. who operates Philip Morris USA Inc. (the company so prominently featured in the photos here). They appear to have organized a letter writing campaign from local retailers in opposition to RTRA. We are confident that you will see through the smoke screen and recognize the need for responsible tobacco retailing in the City.

Altria claims that existing federal and state laws are adequate, yet one look at the photos and you have a visual demonstration of the need to rein in tobacco advertising in the city. These companies know that their advertising works and they will continue to circumvent the rules so they can make money regardless of the consequences.

A National Cancer Institute-designated Comprehensive Cancer Center • A National Comprehensive Cancer Network Member  
A Blue Distinction Center for Complex and Rare Cancers<sup>SM</sup>

REFERRED TO THE COMMITTEE  
ON LEGISLATION.

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Elm & Carlton Streets | Buffalo, NY 14263  
716-845-2300 | www.roswellpark.org  
E-mail: askrpci@roswellpark.org

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UNDERSTAND PREVENT  
& CURE CANCER

Honorable Richard Fontana

Page 2

October 20, 2010

Altria claims that RTRA duplicates the new federal FDA tobacco law and other regulations but in fact the FDA law empowers the City of Buffalo and other municipalities to take control of tobacco retailing in their communities to protect kids from considering this deadly habit.

Altria claims that adoption of RTRA will prompt Buffalo consumers to buy their tobacco products elsewhere and will hurt City retailers. However, the primary impact will be to prevent and/or reduce tobacco use and save lives. Buffalo consumers will shift their spending away from cigarettes and instead will have more cash in their wallets to pay for essentials such as food and clothing.

Some letters to council members from local merchants stated that costs of tobacco would go up. The truth is that RTRA is structured to create an inspection function at no additional cost to local retailers. Any promise of a raise in price is another example of the heavy-handed scare tactics that tobacco companies command their field sales reps to practice with local merchants.

The tobacco companies will continue to attack every part of RTRA using every argument they can think of – no matter how inaccurate, misleading or self-serving.

The RTRA represents a logical and effective way to clean up tobacco marketing in our City. I urge you to join with Councilman Smith in endorsing the RTRA and moving this to a vote of the City Council.

I would welcome the opportunity to discuss questions or concerns you have with the proposed legislation and look forward to continuing the conversation.

Regards,

K. Michael Cummings, PhD, MPH  
Chair of the Department of Health Behavior  
Roswell Park Cancer Institute

cc: Mayor Byron Brown; City of Buffalo Common Council members; Acting Corporation Counsel David Rodriguez

A National Cancer Institute-designated Comprehensive Cancer Center • A National Comprehensive Cancer Network Member  
A Blue Distinction Center for Complex and Rare Cancers<sup>sm</sup>







2 FOOTLONG  
2 SUBS FOR  
\$7.00

WE TAKE ALL  
BOTTLE RETURNS  
NO LIMITS!!!  
Come in  
and  
see our  
Meat  
packages  
ask about our  
FREE  
DELIVERY

2 LITER  
\$1.19  
Coca-Cola

pepsi  
2 LITER

WEEKEND  
FISH FRY  
SPECIAL  
\$7.99  
Wendy's  
New Sauce

Newport  
\$8.60

Super PRICE  
SODA • CIGARETTES • LOTTO • SNACKS • FROZEN  
\$1.99 \$10.99 \$11.99 \$12.99

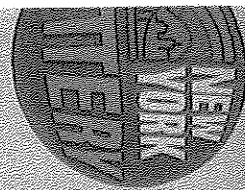
\$2.89







151



# BROADWAY MART

COLD BEER • POP • CIGARETTES • CANDY • FULL LINE OF GROCERIES • EBT ATM • BEAUT

CK  
CE

USA  
6.00  
Ready to Drink

Marlboro  
415  
75

Newport  
8.97  
SPECIAL OFFER

3 for 2  
2.50

NO LOITERING  
POLICE  
ENFORCEMENT  
CODE 104.5

PHONE  
CARDS  
SOLD HERE

OPEN  
UNDER  
NEW MGT.  
We Accept Food Stamps

2.99





\$

6.00

*Everyday Low Prices*



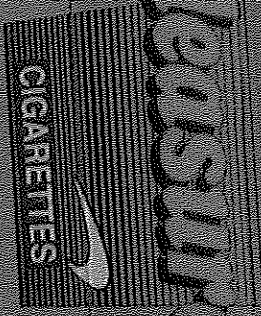
Marlboro

PLUS  
TAX

\$

.75

Newport



SPECIAL OFFER

\$ 8.97



NO LOITERING  
POLICE ENFORCED  
NYS PL 140.15  
CIGARETTES • CANDY • PC

US FULL LINE OF CIGARETTES • MILK  
OPEN 7 DAYS  
MINI MART  
SNACKS • ICE CREAM • CIGARETTES  
12 1/2

BEVERAGES

Newport  
CIGARETTES  
SPECIAL OFFER  
\$ 9.35

JEFFALD EXPRESS

ATM  
Inside




**Frozen Foods**  
 CROISSANTS • HOT WIGGS • CHOCOLATE PATISS  
 KUMBU • CHOCOLATE WAGGERS • PARTY WAGGERS  
 HOT WIGGS • CHOCOLATE WAGGERS • PARTY WAGGERS  
 HOT WIGGS • CHOCOLATE WAGGERS • PARTY WAGGERS

NOTES

Diner • Beer • Ice • Bread • Frozen Food • Cigarettes • Hair & Beauty Supplies • T-Shirts • Socks • Lotion • Etc.

CONCRETE



1000

Special  
Fiber 100%





Million

Special Offer

*Handwritten text:* Special Offer \$9.30

**\$9.30**

SPECIAL OFFER

TAX INCLUDED

**\$8.20**

EVERYDAY LOW PRICE

TAX INCLUDED

**MAVERICK**

**W**

**WHEYS**

39



**FROZEN FOODS**  
CHICKEN FINGERS • HOT POCKETS • CHICKEN PATTIES  
FRENCH FRIES • CHICKEN WINGS • PARTY WINGS  
PIZZA LOOS • MEAT PATTIES • JAMAICAN PATTIES

**SPECIAL:**  
FREE POOL



**BROADWAY CON**  
Grocery • Beer • Ice • Bread • Frozen Food • Cigarettes

130





CUSTOM  
DENTAL  
EARNINGS

# ROYAL FOOD

GROCERIES • CIGARETTES • BEER • CLOTHING

CUSTOM DENTAL  
EARNINGS  
\*CAPS

SALE  
HAIR & BEAUTY SUPPLY

ATM  
Inside

CRICKET  
PAYMENT  
CENTER  
SALES & SERVICE

Newport  
CIGARETTES  
SPECIAL OFFER  
\$ 8.95

PHONES  
STARTING AT  
\$20

THE PRICE  
YOU PICK  
YOU PAY

WE FLASH PHONES

PAY ALL YOUR BILLS

COVERAGE  
now in all 50 states  
come inside for details  
cricket





October 30, 2010

Council Member Demone A. Smith  
1316 City Hall  
Buffalo, NY 14202

*X* Re: Pending Nuisance Abatement Legislation

Dear Council Member Smith,

We are writing in support of the proposed nuisance abatement law being proposed by City Housing Court Judge Henry J. Nowak. Our Community Association, PLDG West, was formed in the summer of 2009 and encompasses portions of Parkdale Ave., Lafayette Ave., W. Delavan Ave and Geenwood Place.

We are very much in favor of having the opportunity to bring a case into Housing Court to address neighborhood concerns such as noise, littering, abandoned cars and graffiti. This legislation would also empower people in their neighborhoods throughout Buffalo to improve quality of life.

This legislation would take the burden off of Housing Inspectors and create a clear legal channel for residents to address serious concerns.

Thank you for your consideration of this law and your commitment to the City of Buffalo. We look forward to hearing from you. Please address response to Jennifer Silverman, 279 Parkdale Ave., Buffalo, NY, 14213.

Sincerely,

*Jennifer Silverman*

Jennifer Silverman  
Co-Chair  
PLDG West

*Nancy Kresge*

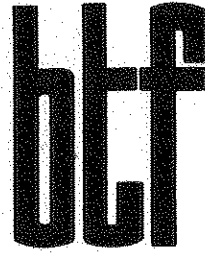
Nancy Kresge  
Co-Chair  
PLDG West

cc: Hon. Henry J. Nowak  
Erie County Legislator Maria Whyte  
Buffalo Board of Block Clubs

REFERRED TO THE COMMITTEE  
ON LEGISLATION.

cm Smith

00040




President PHILIP RUMORE

October 20, 2010

BUFFALO TEACHERS  
FEDERATION, INC

271 PORTER AVENUE  
BUFFALO, N.Y. 14201  
(716) 881-5400  
FAX (716) 881-6678

**Memo To:** Members of the Buffalo Common Council  
**From:** Philip Rumore, President, BTF   
**Re:** Council Resolution Relating to "Challenging the Federal Government's Approach to Failing Buffalo Schools" )

While we, in general, support the resolution that was passed and the return of the principal at Riverside as per the wishes of many of the faculty, we urge caution in expanding this to other principals as was reported in the Buffalo News. The BTF and the faculty at school 45 strongly object to the inclusion in said discussion by the Council of the principal at school 45 as was also reported in the News. As you should have read, that principal had major problems at school 45 (enclosed please find Buffalo News article, teacher survey, and her last correspondence to the staff).

We agree that Districts should not be forced to remove a principal; however, we request that before the Council publicly supports a principal or takes action calling for a principal's return, you provide us with the opportunity to give input into your deliberations.

cc: Anne Blonski, Delegate Chair School 45

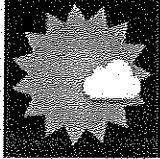
Enclosure: 3

PR:jp

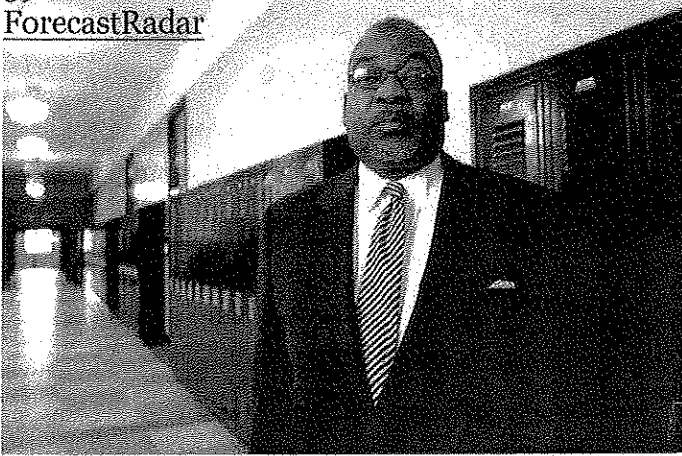
REFERRED TO THE SPECIAL  
COMMITTEE ON EDUCATION

34

Last update: July 25, 2010, 12:41 PM



59°  
ForecastRadar



See P 5 of 6

Superintendent James A. Williams says, "If I follow the script to remove the principals from the buildings, I'm going to sit here with principals I don't need that must be head of schools."

Sharon Cantillon / News file photo

## Williams will keep principals at three failing schools

### Federal grants now in question

By Mary Pasciak

Published: July 25, 2010, 12:49 AM

Updated: July 25, 2010, 0:41 PM

Buffalo School Superintendent James A. Williams is bucking federal guidelines by refusing to remove the principals of three failing schools -- a decision that could cost the district up to \$42 million in grants.

The federal government offers districts up to \$2 million a year per school, for three years, to help turn around failing schools. To get the money, the district must replace any principal who has been in his or her school longer than two years.

In Buffalo, the principals have been in place more than two years each at three of Buffalo's seven "persistently lowest-achieving" schools: Burgard Vocational High School, Riverside Institute of Technology, and International School 45.

But the superintendent says he will not move the principals. 166

If he did, Williams said, that would set in motion a domino effect of other problems.

"You can sit in Albany and just say, 'Remove that principal, they've been there longer than two years,'" Williams said. "But who am I going to replace them with? There's a shortage of leaders in this country."

That's not the only problem that would be created, he said. Pulling those three veteran principals out of their schools would create a dilemma for Buffalo: Where to put them?

The superintendent says a recent arbitration ruling prevents him from reassigning a principal to a position in the central office. That means he would have to reassign the principal to another school.

"If I follow the script to remove the principals from the buildings, I'm going to sit here with principals I don't need that must be head of schools," he added. "What am I going to do? Take their so-called 'bad' principals and put them in good schools and say, 'Here's your principal, folks?'"

Beyond all those concerns, Williams says he believes each of those principals has been instrumental in creating positive change in their building.

Williams said he does plan to move Fatima Morrell, the principal of Lafayette High School, in one year. That school's problems are too deep-seated for any principal, including Morrell -- whom he described as "a very good principal" -- to overcome, Williams said. Lafayette will close in June 2011, then reopen with a new principal and many new teachers.

Even in schools that are performing well, experts agree: The most important person in that building is the principal. An effective principal builds collaborative relationships, troubleshoots problems before they explode, and is a visible presence in the building.

In a struggling school, the principal is even more important.

Karen Barody is managing director of Education Resource Strategies, a Massachusetts-based nonprofit that helps urban districts across the country use their resources most effectively. Her group is currently consulting with the Rochester and Syracuse school districts.

"From our perspective, if you don't have a good principal and you don't give that principal the ability to bring in strong teachers and get rid of low-performing teachers, it's really hard to get traction, even if you spend a huge amount of money on other things," Baroody said. 167

None of the districts her group is working with have refused to replace their principals, she said.

She was not familiar with the schools in Buffalo, and did not comment specifically on Williams' decision to keep the principals in place.

However, Baroody said her group recently conducted four case studies of low-performing schools trying to turn around. In three of the districts -- Atlanta, Charlotte, and New York City -- the principals were replaced.

In the fourth, unidentified, district, officials spent \$1.2 million per year, per school, largely to extend the school day and year -- a cornerstone of Williams' turnaround plans for Buffalo's schools.

That district did not replace its principals. It was the only district out of the four where student performance did not improve.

### **Williams blames state**

In Buffalo, Williams says the problem does not lie with his principals. The problem, he says, lies in Albany and Washington, D.C.

He sees the requirement that principals be replaced as part of a much larger federal push to undermine public schools.

"Washington, D.C., is trying to force school districts to be like they want you to be. I predict they're going to force on school districts more charter schools, more turnaround schools, and to follow their structure," he said. "That's the whole game they're playing, and it's not fair to our children."

State Education officials in Albany, who administer the federal school improvement grants, are out of touch with what's actually going on in Buffalo, Williams charged.

Riverside, Burgard and International School have recently undergone renovations, he said.

During the time each school was being renovated, students were not only displaced

to a temporary location -- they were broken into two groups, with each group at a different site, because no temporary location could accommodate the entire school, he said. 168

"Look at the disruption you have, and the inconsistency in working with children," he said. "The state doesn't know anything about the construction projects we have here. They haven't gotten out of their offices to come and visit the second-largest school district in New York State."

In a recent letter to state Education Commissioner David M. Steiner, Williams laid out his arguments as to why those three principals should not be moved.

"There are practical reasons why principal removal would be counterproductive to our shared goals in specific circumstances," Williams wrote. "It is my contention that these principals are not at the core of the schools' low performance."

### **Principals defended**

Florence Kreiter became principal at Burgard three years ago, after serving as interim principal there for several months.

In his letter to Steiner, Williams wrote: "The principal at Burgard High School has worked with the school to change the climate from one of low expectations to one of expected excellence. The climate is respectful above all else. Academic expectations are high."

State Education Department reports indicate that Burgard's passing rate on the English exam fell from 67 percent in 2007-08 to 43 percent the following year. The passing rate on the Math A exam fell from 45 percent to 15 percent.

Across town at Riverside, Michael Mogavero has been principal nearly six years. There, the graduation rate is 47 percent.

"The principal at Riverside High School has the knowledge of the school and surrounding community necessary to shepherd the students and staff back into their newly reconstructed, newly restructured school," Williams wrote.

Of all the persistently lowest-achieving schools in Buffalo, International School 45 is the building with the longest-serving principal. Colleen Carota has worked in the building for 20 years, including 13 as principal.

That school serves a large population of immigrants, including many children who

do not speak English and have never been in a formal school setting before. Williams had tried unsuccessfully for the state to remove International School from the failing list, in light of the population it serves. 169

Williams noted that student scores have improved there, especially in math. In three years, for example, the percentage of eighth-graders proficient at math increased from 18 to 51 percent.

"The leadership of this principal has been essential to that success," he wrote.

Carota is seen even by many of her critics as having a good understanding of the international students in her school.

But a recent anonymous survey of teachers at School 45, conducted by the teachers union, found widespread complaints about Carota, whom teachers say has become nasty and intimidating. She routinely demeans teachers, curses at them, and threatens to take their teaching licenses.

Several teachers reported that she told them at a staff meeting, "If you think I'm a bitch, you can get a bigger one."

Teachers union president Philip Rumore generally defended Williams' refusal to follow federal guidelines. But he criticized the specific decision to keep Carota in her position.

"In cases like School 45, it's devastating what's going on in the schools. And what does the district do? Nothing. It defends them," he said. "If it was a teacher, they'd be brought up on tenure charges."

The Buffalo News contacted the four principals mentioned in this story, seeking comment. None responded.

Instead, Williams called a Buffalo News reporter, saying he would not allow the principals to be interviewed.

"This is their professional lives, not their personal lives," he said. "Personnel issues are not public information."

### **Question of funding**

At one point in a recent interview, Williams acknowledged the possibility that Buffalo could lose out on its grant funding because of his decision not to replace

principals.

"We probably won't even get funding for [persistently lowest-achieving] schools, because I'm not following their script," he said, referring to the state Education Department.

After three years, he noted, the school improvement grant funds would disappear, and Buffalo does not have the resources to step in with its own money to continue any programs that would be put in place.

"Why should I dismantle the system when we're showing progress, when three years from now, that money won't be there?" he said.

Later in the interview, though, he insisted that he believes Buffalo will get the grant money.

"I'm going to get the money. Yeah. Because we have a good plan," he said, referring to the turnaround plan the district submitted to Albany.

The state Education Department is expected to announce its decision regarding Buffalo's grant application in mid-August.

[mpasciak@buffnews.com](mailto:mpasciak@buffnews.com)

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City of Buffalo  
65 Niagara Square  
Buffalo, NY 14202  
(716)851-4949 Fax (716)851-5472

# SIGNS Building Application

Report Date 10/29/2010 03:41 PM

Submitted By DAVID GRUNDY

Page 2

## Applicants/Contacts

No Applicant Contacts

## Contractors

Primary Y Capacity Type  
Effective Expire  
Contact ID C1008 Name WILCOX BROTHERS SIGN CO  
Phone (716)213-0797 x Fax (716)213-0798 Address 317 WHEELER ST  
Comments TONAWANDA, NY 14150-  
No Comments

License #	Type	Contact ID	Name
549907	SBU	AC796608	WILCOX BROTHERS SIGN CO.

## Item Description

## Item Status

Check Fees	Fees Failed
ZONING BOARD FEE (\$75.00)	Awaiting
APPLICATION FEE (PLANS AFTER ZONING) (\$25.00)	Unpaid
SIGN PERMIT FEE (\$40.00)	Unpaid
FLAT FEE POLE SIGN AT COMMERCIAL SITE (\$75.00)	Unpaid
Check Inspections	Inspections Successful
Check Reviews	Reviews Successful
Check Conditions	Conditions Successful
Check Alert Conditions	Alert Conditions Successful
Check Licenses	Not Checked
Check Children Status	Children Successful
Check Open Cases	0

Fees	Status	Paid Date	Amount
APPLICATION FEE (PLANS AFTER ZONING)	U		25.00
FLAT FEE POLE SIGN AT COMMERCIAL SITE	U		75.00
SIGN PERMIT FEE	U		40.00
ZONING BOARD FEE	A		75.00
Total Unpaid		215.00	Total Paid 0.00

Inspections	Insp #	Insp Type	#	Ord/Grp	Assigned To	Call	Scheduled
Preference		Inspected By		Comments			

There are no Inspections for this Report

Review Activities	Act #	Act Type	Status	Waived	Issued	Started	Completed
Comp By		Comments					

There are no Review Activities for this Report

## Activity Review Details

No Activity Review Details

Check Conditions	Approval	Approved By	Approved Date	Applied By	Applied Date	Assigned
Condition	Supervisor Required	Comments				

No Conditions

Planning Condition	Description	Effective	Expire	Comments
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There is no planning condition for this project.

A/P #	A/P Type	Status	Stage	Relation
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**City of Buffalo**

65 Niagara Square  
Buffalo, NY 14202  
(716)851-4949 Fax (716)851-5472

**SIGNS Building Application**

176

**Report Date** 10/29/2010 03:41 PM

**Submitted By** DAVID GRUNDY

Page 3

**SIGNS**
☐ Work Done by Owner

☒ Zoning Board of Appeals

10/29/2010 15:30

POLESIGNCO

FLAT FEES

☐ Work Without Permit (FINE)

NO.	TYPE OF SIGN	SIZE(S)	TOTAL SQ.FT.	HEIGHT
2	Pole Sign	2 @ 4' BY 8' BY 18' HIGH	= 64	18.0
0	Ground Sign		= 0	0.0
3	Wall Sign	3 @ 10" BY 20'	= 50	
0	Awning Sign		= 0	
0	Advertising Sign		= 0	
0	Projecting Sign		= 0	
0	Roof Sign		= 0	

Zoning District: R3 / C2

**Model Home Details**

Type	Model #/Option	Comments
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There are no items in this list

**Employee**  
Employee ID

Last

First

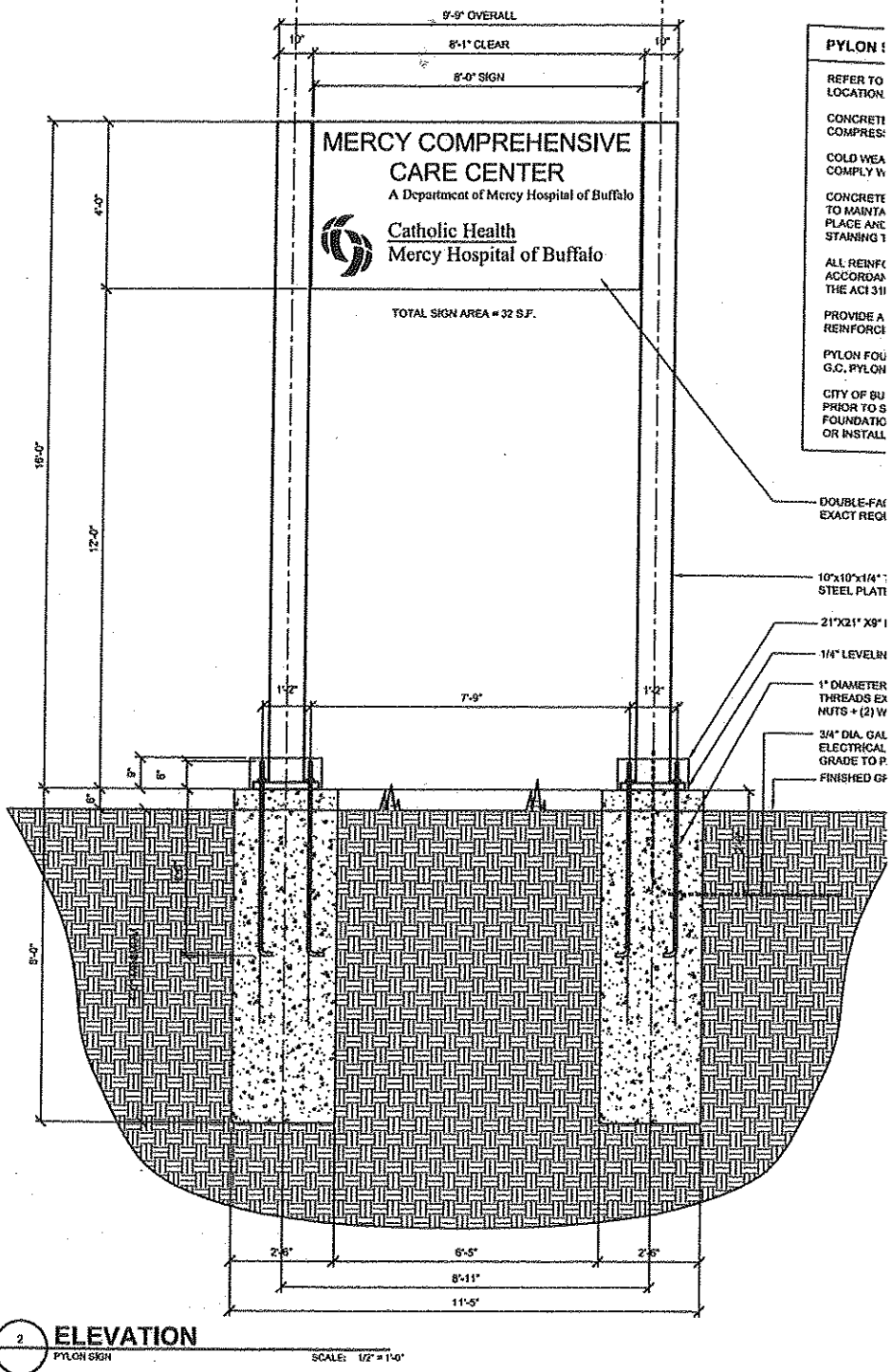
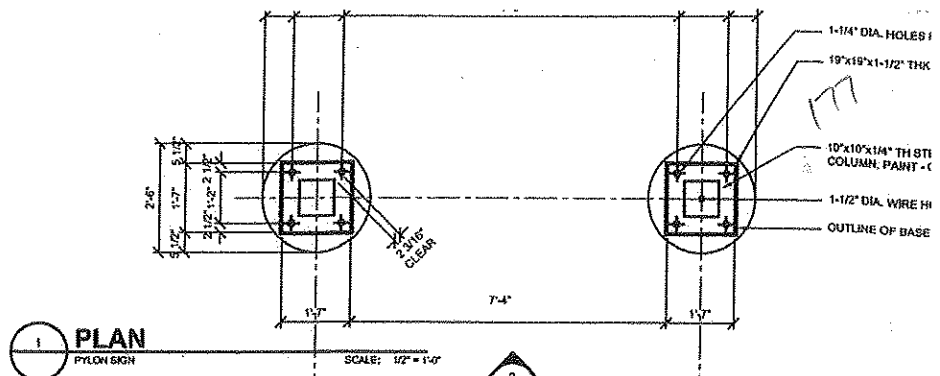
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Comments

No Employee Entries

Log Action	Description	Entered By	Start	Stop	Hours
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No Log Entries



00043

178

D. Land, Agent, Use 2616 Main Street for an Outdoor Patio  
(Del)(pub hrg 11/23)

REFERRED TO THE COMMITTEE ON LEGISLATION AND THE CITY  
PLANNING BOARD

37

# OFFICE OF THE CITY CLERK

GERALD A. CHWALINSKI

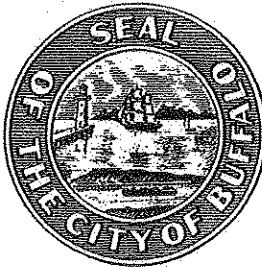
City Clerk  
Registrar of Vital Statistics

PATRICK SOLE, JR.

Deputy City Clerk

DIANA RICO

Deputy City Clerk  
Vital Statistics



65 NIAGARA SQUARE  
ROOM 1308 CITY HALL  
BUFFALO, NEW YORK 14202  
PHONE: (716) 851-5431  
FAX: (716) 851-4845

This is to acknowledge that I have been informed as to the time and place  
for the public hearing regarding:

2616 Main St

to be held in the Council Chamber, 13th Floor, City Hall On:

11-23-10 AT 2:00 PM

I am also informed that this is the only notice that the petitioner and or owner will receive,  
and that if I am not the owner or petitioner, I will inform said owner, petitioner or  
his/her agent of the above.

Signed Dadonful (Agent or Owner)

Print Name Dadonful Phone # 716-381-1464

Date 11-8-10

ATTENTION:

**PLEASE ALSO CONTACT BILL GRILLO PRINCIPAL PLANNER, 851-5086**  
**FOR PLANNING BOARD MEETING.**

11-16-10 Council  
11-23-10 Leg, CPBD  
11-30-10 approval

City of Buffalo  
65 Niagara Square  
Buffalo, NY 14202  
(716)851-4949 Fax (716)851-5472

# OUTDORCAFE Building Application

180

Report Date 11/08/2010 02:58 PM

Submitted By FLD

Page 1

A/P # 161190

## Application Information

### Stages

	Date / Time	By		Date / Time	By
Processed	11/08/2010 14:54	DIGEF	Temp COO		
Issued			COO		
Final			Expires		

### Associated Information

Type of Work	# Plans	0	Declared Valuation	0.00
Dept of Commerce	# Pages	0	Calculated Valuation	0.00
Priority	<input checked="" type="checkbox"/> Auto Reviews	Bill Group	Actual Valuation	0.00
Square Footage	0.00	Name		

### Description of Work

PLACE AN OUTDOOR CAFE/PATIO APPROX. 17'X54'ON THE R.O.W. (VERNON ST SIDE) (SURVEY/SKETCH SCANNED) IN FRONT OF A BAR/ RESTUARANT PENDING APPROVAL UNDER A/P#160009. C.C.APPROVAL/RESTRICTED USE APPLIED FOR UNDER A/P#160009 AND SHALL PROVIDE APPROVAL FOR THISA/P.

### Parent A/P #

Project #  
Size/Area

Project/Phase Name  
Size Description

Phase #

### Property/Site Information

Address 2616 MAIN  
BUFFALO NY 14214-

Location

### Owner/Tenant

Contact ID AC1229403	Name C/O AVENUE PIZZA & SUB SH 2616 MAIN ST INC	Organization	
Mailing Address ATTN: MARIETTA		State/Province BUFFALO NY	
City 2620 MAIN ST		Country	<input type="checkbox"/> Foreign
ZIP/PC 14214-2024		Evening Phone	
Day Phone		Mobile #	
Fax		Owner Y	From 02/22/2005 To 05/06/2007
Occupant N	From To		

Contact ID AC31922	Name C/O AVENUE PIZZA & SUB SHOP 2616 MAIN ST INC	Organization	
Mailing Address 2620 MAIN ST		State/Province NY	
City BUFFALO		Country USA	<input type="checkbox"/> Foreign
ZIP/PC 14214-2024		Evening Phone	
Day Phone		Mobile #	
Fax		Owner Y	From 05/28/2000 To 05/06/2007
Occupant N	From To		

Contact ID AC338532	Name CELORON DEVELOPMENT LLC	Organization	
Mailing Address 5505 MAIN ST		State/Province NY	
City BUFFALO		Country USA	<input type="checkbox"/> Foreign
ZIP/PC 14221		Evening Phone	
Day Phone		Mobile #	
Fax		Owner Y	From 02/13/2008 To
Occupant N	From To		

City of Buffalo  
65 Niagara Square  
Buffalo, NY 14202  
(716)851-4949 Fax (716)851-5472

# OUTDORCAFE Building Application

181

Report Date 11/08/2010 02:58 PM

Submitted By FLD

Page 3

Review Activities	Act #	Act Type	Status	Waived	Issued	Started	Completed
Comp By		Comments					

There are no Review Activities for this Report

## Activity Review Details

Detail 1. PRIOR REQUIRED APPROVALS Modified By DIGEF Modified Date/Time 11/08/2010 14:55

### Comments

No Comments

### PRIOR APPROVALS

#### Bflo Arts Commission

- ☐ Arts Comm. Approval
- ☐ Special events

#### City Engineering

- ☐ Curb Cuts
- ☒ Encroachment
- ☐ Oversize Trucking
- ☐ Plumbers' Cuts
- ☐ Street Cuts

#### City Planning

- ☐ Citywide Site Plan
- ☐ Subdivisions
- ☐ Urban Renewal

#### City Survey

- ☐ Address Permit
- ☐ Development
- ☐ Flood Plain

#### City Survey (con't)

- ☐ Subdivisions

#### Common Council

- ☐ Admin Office/Apts R4
- ☐ Beauty Parlor R2
- ☐ Canopy/Marquee ROW
- ☐ Freestanding Sign
- ☐ Human Service Facility
- ☐ Portable Sign in ROW
- ☐ Restricted Use Permit
- ☐ Other

#### Environmental Review

- ☐ S.E.Q.R.A.
- ☐ N.E.P.A.

#### Law Office

- ☐ Insurances Check
- ☐ Title Held

#### Permit Office

- ☐ Asbestos Survey
- ☐ Bond/Certified check
- ☐ First Insurances Check
- ☐ Notarized Permission/  
Lease showing Use
- ☐ Rodent/Vermin Bait
- ☐ Sewer/Water Cut
- ☐ Simple Demolition
- ☐ Simple Plan Approval
- ☐ Zoning/Use Check

#### Preservation Board

- ☐ Preservation District
- ☐ Contiguous Check

#### Water Department

- ☐ New Water Supply
- ☐ Water Retention

- ☐ Asbestos Abatement
- ☐ Assessment Combination
- ☐ Public Works approval  
for portable sign one year  
encroachment
- ☐ Sewer Retention
- ☐ Telecommunication
- ☐ Tree over 4" at 4'
- ☐ Thruway Sign approval
- ☐ Zoning Variance

Check Conditions	Approval	Approved By	Approved Date	Applied By	Applied Date	Assigned
Condition	Supervisor Required	Comments				

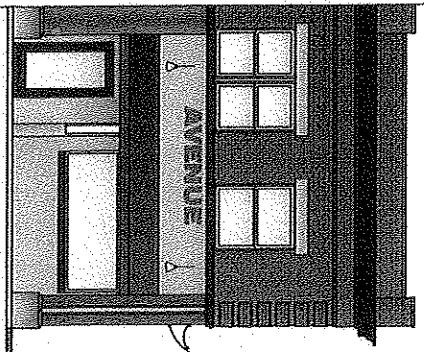
MD	OK	DIGEF	11/08/2010 14:55	DIGEF	11/08/2010 14:54	
N						

Planning Condition	Description	Effective	Expire	Comments
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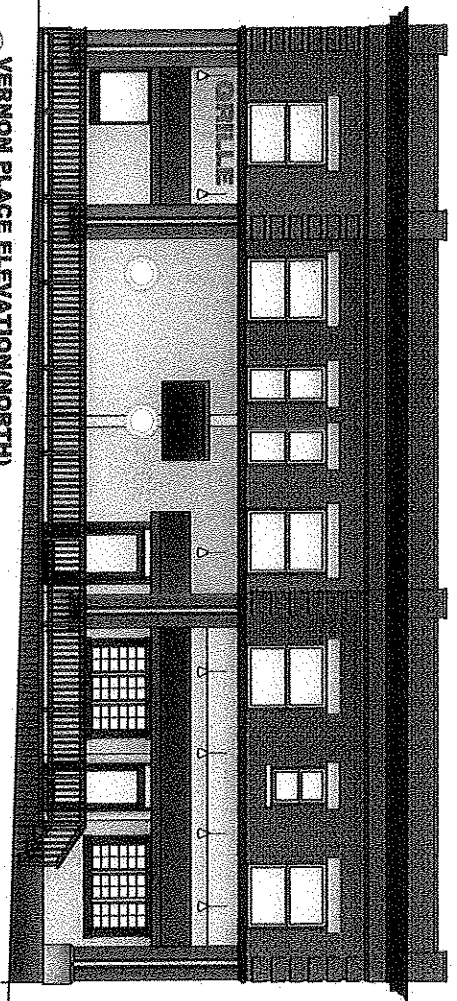
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A/P #	A/P Type	Status	Stage	Relation
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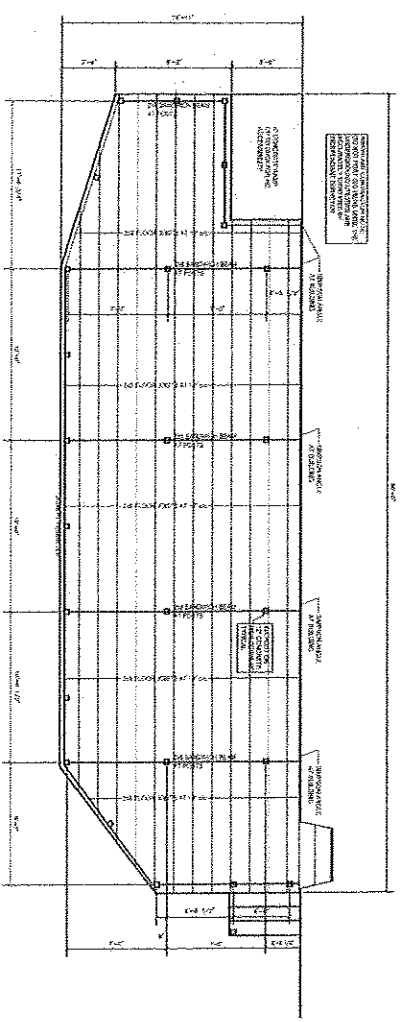
No Records for This Search Criteria



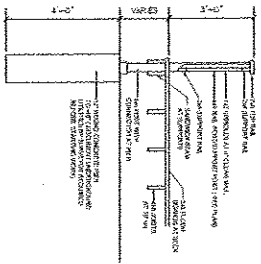
1 MAIN STREET ELEVATION ( WEST )



2 VERNON PLACE ELEVATION(NORTH)



3 DECK FRAMING PLAN



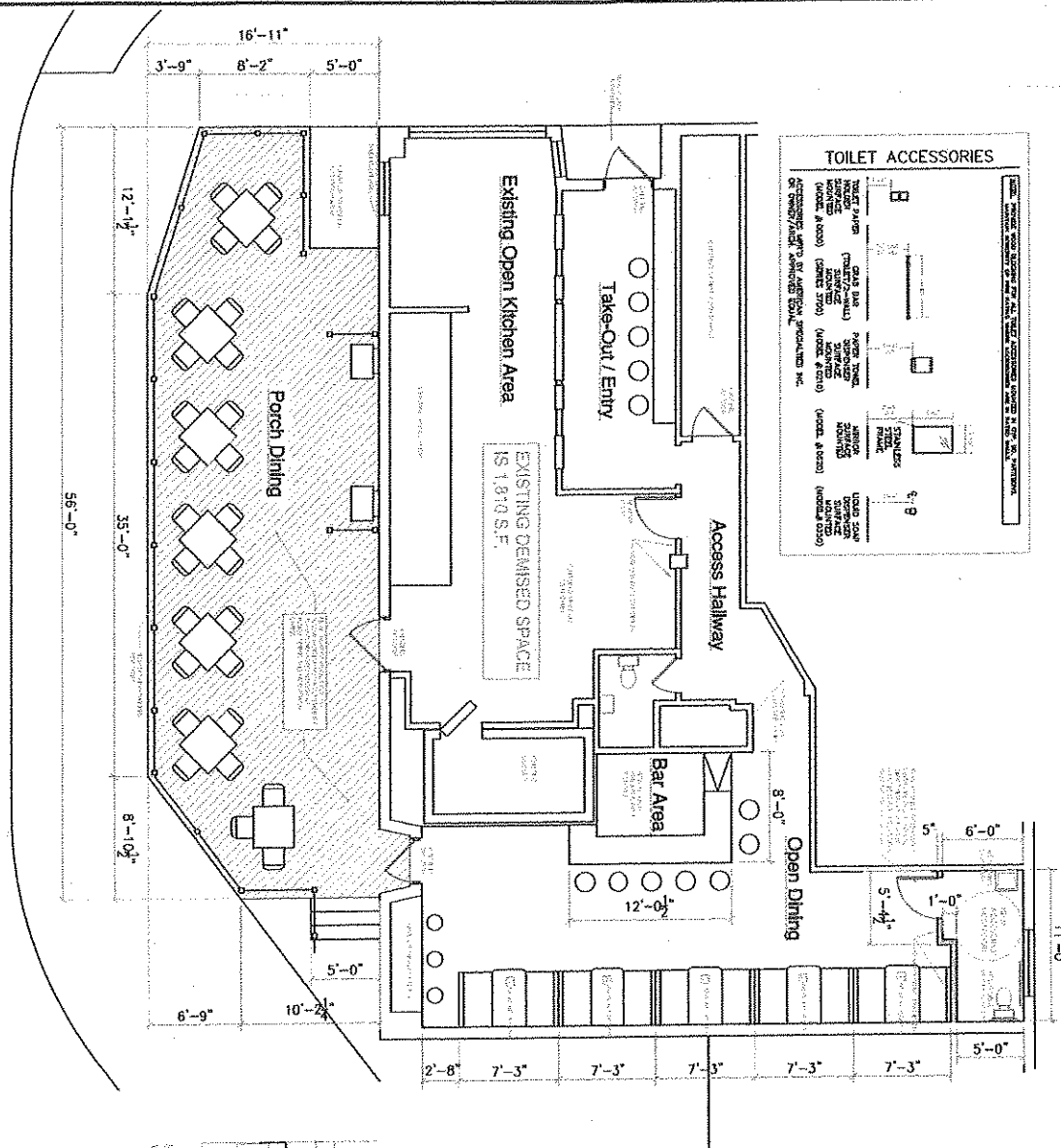
4 RAILING DETAIL

2014-10-10

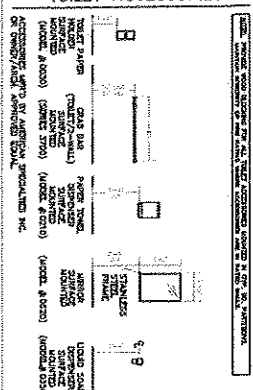
<b>PROJECT</b> NEW HANDICAPPED ACCESSIBILITY IMPROVEMENTS AND DINING EXPANSION FOR AVENUE GRILLE 2516 MAIN STREET BUFFALO, NEW YORK	<b>DATE</b> 10/22/10	<b>PROJECT NUMBER</b> 101	<b>REVISIONS</b>		<b>DATE</b>	<b>BY</b>
			1			
<b>AP Architects</b> 201 Main Street Buffalo, NY 14203 www.aparchitects.com	<b>DATE DRAWN</b> 10/13/10	<b>DATE REVISION</b> 10/22/10	2			
			3			
			4			
			5			
			6			
			7			



### FIRST FLOOR PLAN

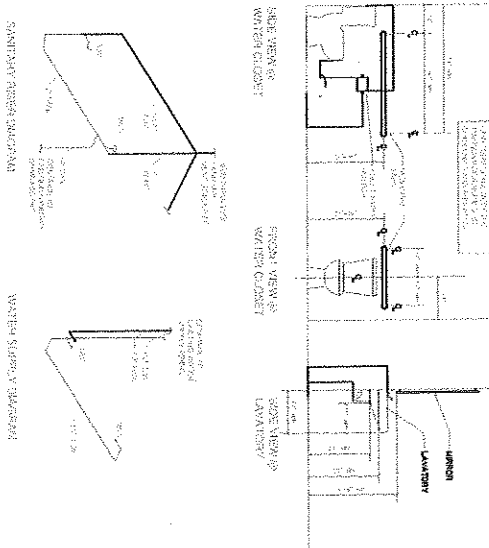


## TOILET ACCESSORIES



## PROJECT SPECIFICATIONS

1. The purpose of this document is to provide a detailed description of the system architecture and its components. The system is designed to handle a large volume of data and provide a high level of performance. The architecture is based on a modular design, allowing for easy integration and scalability. The system is composed of several key components, including a database, a web server, and a client application. The database is responsible for storing and retrieving data, while the web server handles the presentation layer. The client application is used by the end user to interact with the system. The system is designed to be secure and reliable, with a focus on data integrity and availability. The architecture is based on a layered design, with each component responsible for a specific function. The database layer is responsible for data storage and retrieval, while the web server layer handles the presentation and business logic. The client application layer is responsible for the user interface and data entry. The system is designed to be flexible and adaptable, allowing for future enhancements and changes. The architecture is based on a modular design, allowing for easy integration and scalability. The system is composed of several key components, including a database, a web server, and a client application. The database is responsible for storing and retrieving data, while the web server handles the presentation layer. The client application is used by the end user to interact with the system. The system is designed to be secure and reliable, with a focus on data integrity and availability. The architecture is based on a layered design, with each component responsible for a specific function. The database layer is responsible for data storage and retrieval, while the web server layer handles the presentation and business logic. The client application layer is responsible for the user interface and data entry. The system is designed to be flexible and adaptable, allowing for future enhancements and changes.

[illegible]





# LEGAL SERVICES

FOR THE ELDERLY, DISABLED OR  
DISADVANTAGED OF W.N.Y., INC.

00041

716-853-3087 • Fax: 716-856-5317

237 Main Street • Suite 1015 • Buffalo, New York 14203-2717

**Chief Executive Officer:**  
Karen L. Nicolson, Esq.

September 2010

**Supervising Attorney:**  
William W. Berry, Esq.

## ALERT LETTER

**Attorneys:**  
Beata Banas, Esq.  
Helen Ferraro-Zaffram, Esq.  
Sarah R. Galvan, Esq.  
David A. Shapiro, Esq.  
Daniel F. Webster, Esq.

**Clinical Instructor:**  
Anthony Szczygiel, Esq.

**Paralegals:**  
Nicole Blackwell  
Joanna M. Esquillin  
Thomas E. Hayduk  
Cheryl Kostrewa  
Brenda A. Symans  
Furnette Williams

**Social Worker:**  
Kathleen M. Kanaley, BSW

**Office Manager:**  
Michaelene Bauer

**Administrative Assistant:**  
Robert S. Esposito

**Board of Directors:**  
**President:**  
Thomas F. Keefe, Esq.

**Vice Presidents:**  
Giles P. Manias, Esq.  
Frederic Paul Norton, Esq.  
Randolph C. Oppenheimer, Esq.  
Bruce D. Reinoso, Esq.

**Treasurer:**  
Shari Jo Reich, Esq.

**Deputy Treasurer:**  
Julie Plesh, CPA

**Secretary:**  
David J. Starkey, Esq.

**Directors:**  
Ericka N. Bennett, Esq.  
Jan Berg  
Jill K. Bond, Esq.  
John C. Brady, III  
Tracy Jordan-Cardwell  
J. Michael Collins  
Robert L. Marinelli, Esq.  
Robert Meiss  
Timothy O'Mara, Esq.  
James P. Milbrand, Esq.  
Jamie Smith, Esq.  
Michele Sterlace-Accorsi, Esq.  
Patrick Walh  
Clifford E. Whitman

**Honorary Board Members:**  
Elizabeth G. Clark, Esq.  
Gayle L. Eagan, Esq.  
Richard F. Griffin, Esq.  
Hortense B. Nash

### UPSTATE NEW YORK IS NOT SUFFICIENTLY UTILIZING PERSONAL CARE FOR MEDICAID BENEFICIARIES

According to data by the New York State Department of Health, NYC spends 11.7% of its Medicaid Expenditures on personal care services. The rest of the state only spends 4.6% of Medicaid dollars on PCA services. Moreover, while the rest of state spends 32.3% of Medicaid expenditures on nursing home care, NYC relies less on institutional care--spending only 24.1% of its Medicaid dollars on nursing home care.\*

Although there are many fine local nursing homes, most of our elderly clients would prefer to live in their own homes and, in many cases, it is more cost-effective to keep people out of institutions. However, at Legal Services for the Elderly, we have noticed a decrease in referrals from seniors who wish to challenge their PCA hours. The above statistics confirm what we are seeing locally.

Your clients/patients can get up to 24 hours care at home, although usually not without some advocacy. If you are told by Medicaid, CASA, or anyone else that a client is only entitled to a certain amount of hours, and you feel that they need more, please give us a call. You can also have your clients/patients call us directly.

We cannot change the above statistics unless we get the referrals. To refer a case to us, please call us at 853-3087 (ext. 220). To discuss the issue in more detail, please call Karen L. Nicolson, Esq. at 853-3087 (ext. 205). For more information about our services, please visit our website at [www.lsed.org](http://www.lsed.org).

\* Valerie Bogart, Selfhelp Community Services, Inc., [vbogart@selfhelp.net](mailto:vbogart@selfhelp.net). For AD HOC STATEWIDE COALITION OPPOSING CAP ON PERSONAL CARE and CONSUMER DIRECTED PERSONAL ASSISTANCE PROGRAM (CDPAP) SERVICES Data from Medicaid Quarterly Reports of Beneficiaries, Expenditures, and Units of Service by Category of Service by Aid Category by Region, at <http://www.health.state.ny.us/nysdoh/medstat/quarterly/aid/quarterly.htm>. CY2008 data from [http://www.health.state.ny.us/nysdoh/medstat/quarterly/aid/2008/cy/docs/2008\\_cy\\_aid.xls](http://www.health.state.ny.us/nysdoh/medstat/quarterly/aid/2008/cy/docs/2008_cy_aid.xls)

REFERRED TO THE COMMITTEE  
ON LEGISLATION.

00044

185

D. Jackson, Agent, Use 15 Barthel St for a HSF  
(Fill)(no pub hrg)

REFERRED TO THE COMMITTEE ON LEGISLATION, THE CITY PLANNING  
BOARD, ZONING BOARD OF APPEALS

38

186

<u>D. Jackson</u>	<u>15 Barclay St.</u>	<u>HSE</u>
NAME OF AGENT/OWNER	ADDRESS	PROJECT

THE ATTACHED PERMIT IS FOR COMMON COUNCIL APPROVAL. NO PUBLIC HEARING IS REQUIRED AS DETERMINED BY THE PERMIT OFFICE.

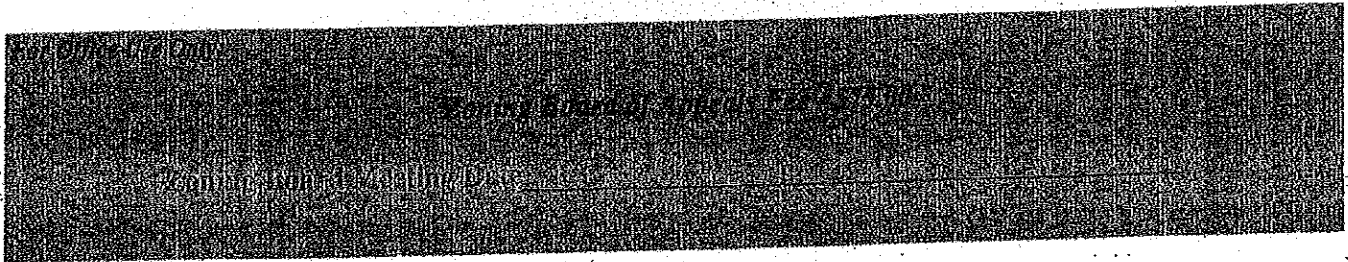
REFERRED TO THE COMMITTEE ON LEGISLATION AND CITY PLANNING BOARD.

MESSAGE TO APPLICANT: PLEASE CONTACT BILL GRILLO OF THE CITY PLANNING BOARD (851-5086) TO DETERMINE WHETHER OR NOT YOU NEED PLANNING BOARD APPROVAL.

187

**APPLICATION  
FOR  
HUMAN SERVICES RESTRICTED USE PERMIT**

APPLICATION MUST BE COMPLETED IN FULL



Date                      20           

Business Name EASTside Redevelopment Business Phone # 716-570-9165

Business Address 356 FOUQUERON ST. Bf10, n.y. n.y. 1424  
(No., Street) (City, Town or Village) (State) (Zip)

Human Service Facility Address Same Buffalo, New York  
(No., Street)

Business Standing: Private Entity            Public Entity X

Applicant Name Darwell Jackson SR. Applicant Phone # 716-570-9165

Applicant Address 15 Barthel ST. Bf10 n.y. 1424  
(No., Street) (City, Town or Village) (State) (Zip)

Applicant's Business Position: Owner            Partner            Corporate Officer X Other           

**Business Operational Information**

Type of Facility: Food Pantry            Soup Kitchen            Walk-In Center X Drop-In Center X

Counseling Center X Detention Center            Temporary or Short-Term Shelter           

Transient Housing            Substance Abuse Community or Residential Treatment Facility           

Residential Treatment Facility (Correctional Purposes)            Other           

Detailed description of the Proposed Use CLASS Rooms, Recreational, AFTER school  
Home work - Tutoring, Computers,

Business Operation Information

Facility Days/Hrs of Operation

9 pm - 11 pm

Number of Individuals Served (weekly)

200 wky

Number of Residents to be Housed (if applicable)

Activities/Programs at Facility (description)

Computer Classes, Homeless, Tutoring  
GED, Recreational, mentoring

Degree of Supervision at Facility

Full time during open hours

Demonstration Of Need (Why Services are needed/Why this Location and etc.)

Highest crime rate in city, Lack of activities to give  
youth alternatives, to life of drugs & crime,  
Location is accessible from all parts of city.

more information available as needed.

Other Pertinent Information

Has support from all levels of Govt  
and Clergy in and outside of city, Support from all  
Block clubs in area and surrounding area

Darnell Jefferson Jr.  
Applicant Signature

Subscribed and sworn to before me this

day of

, 20

Commissioner of Deeds in and for the  
City of Buffalo, New York

City of Buffalo  
65 Niagara Square  
Buffalo, NY 14202  
(716)851-4949 Fax (716)851-5472

# GC Building Application

189

Report Date 11/08/2010 10:51 AM

Submitted By DAVID GRUNDY

Page 1

A/P # 161158

## Application Information

### Stages

	Date / Time	By		Date / Time	By
Processed			Temp COO		
Issued			COO		
Final			Expires		

### Associated Information

Type of Work	# Plans	0	Declared Valuation	0.00
Dept of Commerce	# Pages	0	Calculated Valuation	0.00
Priority	<input checked="" type="checkbox"/> Auto Reviews	Bill Group	Actual Valuation	0.00
Square Footage	0.00	Name		

### Description of Work

ZONING BOARD APPROVAL REQUIRED, SECTION 511-136, FOR A HUMAN SERVICE FACILITY. COMMON COUNCIL RECOMMENDATION REQUIRED. NO PUBLIC HEARING, NO FEE. CITY PLANNING RECOMMENDATION REQUIRED. CHANGE OF USE - IN A REAR PORTION OF A 1 AND 2 STORY MASONRY INDUSTRIAL COMPLEX, CONVERT USE FROM BAKERY TO HUMAN SERVICE FACILITY. PUBLIC ASSEMBLY, CLASSROOMS, AFTER-SCHOOL RECREATIONAL, READING AND HOMEWORK PROGRAM. PLANS REQUIRED.

### Parent A/P #

Project #	Project/Phase Name	Phase #
Size/Area	Size Description	

## Property/Site Information

Address 356 FOUGERON  
BUFFALO NY 14211-

Location 313 FOUGERON

## Owner/Tenant

Contact ID AC228396	Name 974 EAST DELAVAN LLC	Organization	
Mailing Address 4545 TRANSIT RD STE 954		State/Province NY	
City WILLIAMSVILLE		Country USA	<input type="checkbox"/> Foreign
ZIP/PC 14221		Evening Phone	
Day Phone		Mobile #	
Fax		Owner Y	From 06/29/2006 To
Occupant N	From To		
Contact ID AC68156	Name CO CONTINENTAL BAKING	Organization	
Mailing Address % INTERSTARE BRANDS CORP		State/Province KANSAS CITY MO	
City PO BOX 419627		Country	<input type="checkbox"/> Foreign
ZIP/PC 64141-6627		Evening Phone	
Day Phone		Mobile #	
Fax		Owner Y	From 05/28/2000 To 05/06/2007
Occupant N	From To		

## Linked Addresses

No Addresses are linked to this Application

## A/P Linked Addresses

No Addresses are linked to this Application

## Linked Parcels

1015400002001000

## A/P Linked Parcels

No Parcels are linked to this Application



## City of Buffalo

65 Niagara Square  
Buffalo, NY 14202  
(716)851-4949 Fax (716)851-5472

## GC Building Application

190

Report Date 11/08/2010 10:51 AM

Submitted By DAVID GRUNDY

Page 3

Check Conditions Condition	Approval Supervisor Required	Approved By Comments	Approved Date	Applied By	Applied Date	Assigned
-------------------------------	---------------------------------	-------------------------	---------------	------------	--------------	----------

No Conditions

Planning Condition	Description	Effective	Expire	Comments
--------------------	-------------	-----------	--------	----------

There is no planning condition for this project.

A/P #	A/P Type	Status	Stage	Relation
-------	----------	--------	-------	----------

No Records for This Search Criteria

## General Construction

0 No. of Residential Units Lost ☐ Residential ☐ Work Without Permit (FINE) Debris:  
0 No. of Residential Units Added ☒ Commercial ☐ Work Done by Owner ☐ Truss Construction

☐ Zoning Board of Appeals

## ELEVATORS

You must fill out the custom form on activity detail if there is ELEVATOR work to be completed.

Building Construction: II

USE SQ FT USE	Sq. Ft.	Demo	GC
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There are no items in this list

Model Home Details Type	Model #/Option	Comments
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There are no Items in this list

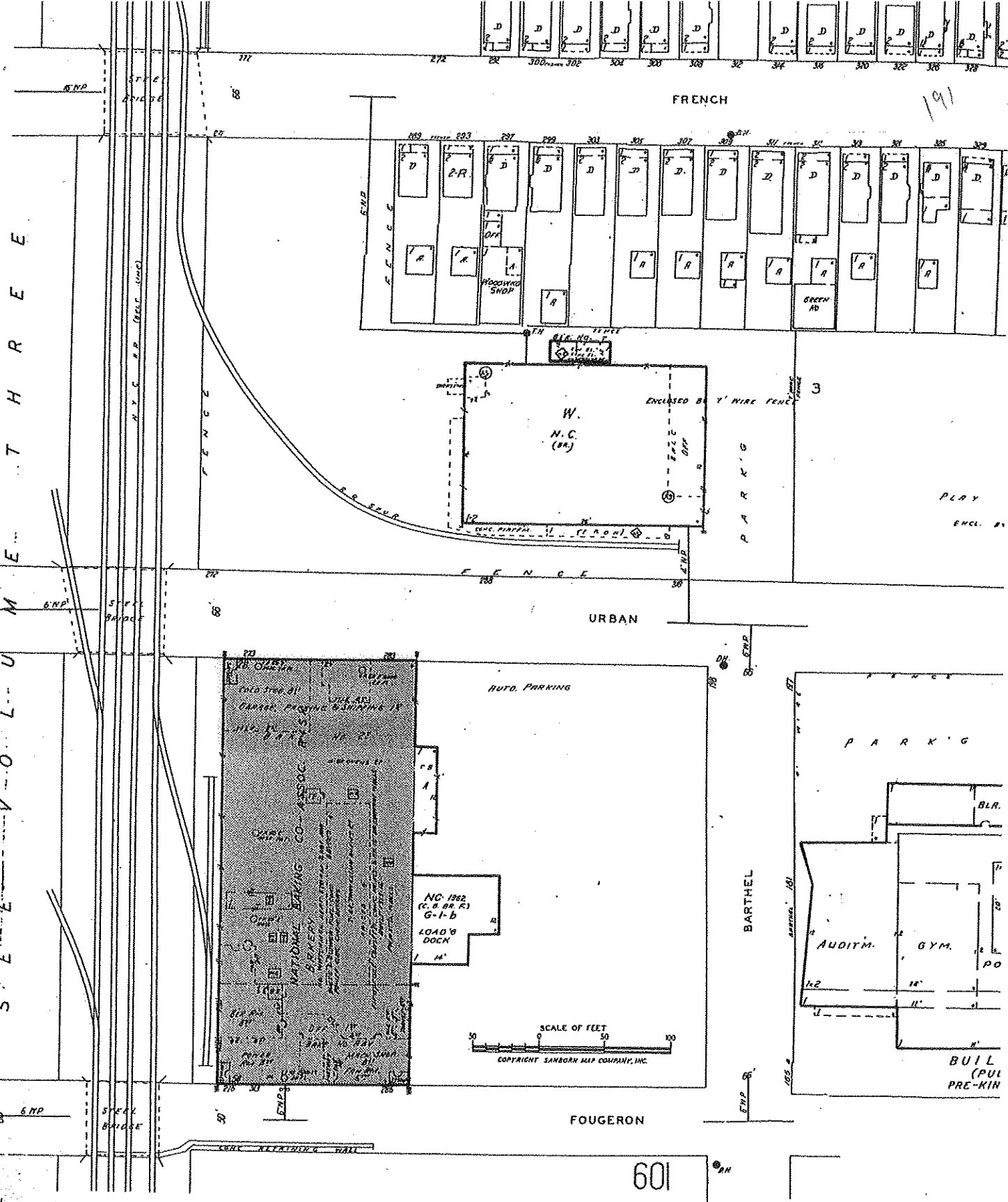
Employee Employee ID	Last	First	MI	Comments
-------------------------	------	-------	----	----------

No Employee Entries

Log Action Comments	Description	Entered By	Start	Stop	Hours
---------------------------	-------------	------------	-------	------	-------

No Log Entries

SEEVOLUM THEREE



198

The undersigned electors of the City of Buffalo, New York, acting in our capacity as residents of this community with an inalienable right to local self-governance, hereby petition and direct the members of the Buffalo City Council, who are sworn to protect the health, safety and welfare of this community, to advertise and then adopt "Buffalo's Community Protection from Natural Gas Extraction Ordinance," which the People of the City have submitted to the members of their Council.

Signature of Elector	Printed Name of Elector	Residence	Date of Signing
<i>R. Yelda</i>	Rita Yelda	Buffalo NY 14206	10/8/10
<i>RAAD YELDA</i>	RAAD YELDA	Buffalo NY 14206	10/9/10
<i>ALEXANDRA BINKIEL</i>	ALEXANDRA BINKIEL	Buffalo NY 14206	10-9-2010
<i>Susan Herdic</i>	Susan Herdic	86 Buckeye Rd 14226	10-9-2010
<i>Autumn Howard</i>	Autumn Howard	Buffalo NY 14226	10/9/10
<i>Sakura Sato</i>	Sakura Sato	Buffalo, NY	10/9/10
<i>Ann Winkowski</i>	Ann Winkowski	Lkpt NY 14094	10/9/10
<i>Catherine Khouri</i>	Catherine Khouri	651 Wrentham Dr. Apt 1 Buffalo, NY	10/9/10
<i>Bryan Kallen</i>	Bryan Kallen		10/9/10
<i>Scott McCormick</i>	Scott McCormick	1113 Dodge Rd Getzville, NY 14068	
<i>Shirley M. Chan</i>	Shirley M. Chan	5096 College St, Hamburg 14075	10/9/10
<i>Jeffrey Melvin</i>	Jeffrey Melvin	40 Progressive Ave. Buffalo, NY 14207	10-9-10
<i>Kathleen McCon</i>	Kathleen McCon	1114 Dodge Rd Getzville, NY	10/9/10
<i>Judy Casassa</i>	Judy Casassa	4754 Harlem Rd Buffalo, NY 14226	10/8/10
<i>Judy Dumitru</i>	Judy Dumitru	32 Front St. Akron 44301	10/9/10
<i>Joy Svensson</i>	Joy Svensson	322 Creekside Trm. 14150	10/9/10
<i>Philip Stoddart</i>	Philip Stoddart	4380 Main Street	10/9/10
<i>Millie Dudek</i>	Millie Dudek	140 Vern Lane Cheektowatch, NY 14227	10-9-10
<i>Eliza Schneider</i>	Eliza Schneider	508 Franklin St Buffalo, NY	10-9-10
<i>Brooke Ayoub</i>	Brooke Ayoub	6120 Got Creek Trail 1405	10-9-10
<i>Esther Rieley-Goddard</i>	Esther Rieley-Goddard	378 Herkimer Pkwy Buffalo, NY 14213	10-9-10
<i>Dianne Riordan</i>	Dianne Riordan	121 Oak Manor Dr Derby	10-9-10
<i>Mary E. Johnson</i>	Mary E. Johnson	109 Pershing Dr. Roch	10-9-10
<i>Geraldine Tomczuk</i>	Geraldine Tomczuk	271 Beach Rd. Cheektowatch, NY 14025	10/9/10
<i>Nancy DeMarco</i>	Nancy DeMarco	452 Woodgate Rd Tonawanda, NY 14158	10/9/10
<i>Sean Lewis</i>	Sean Lewis	Lockport, NY	10/9/10
<i>Patricia Hygent</i>	Patricia Hygent	334 N. Wrexham Ct. Tonawanda, NY 14150	10/9/10
<i>Laura Prybylka</i>	Laura Prybylka	30 Wexham Pkwy. 14151	10/9/10
<i>Christy Krolewicz</i>	Christy Krolewicz	2745 Oakland Dr Eden	10/9
<i>Lorelee Sessanna</i>	Lorelee Sessanna	3932 Eckhardt Rd Hamburg	10/9
<i>Laura Foster</i>	Laura Foster	2745 Oakland Dr Eden	10/9
<i>Amy Beiter</i>	Amy Beiter	107 Sargent Dr. Amherst 14226	10/9/10
<i>Walter Simpson</i>	Walter Simpson	9 Meadowstream Ct 14226	10/9/10
<i>James Harkness</i>	James Harkness	38 McConkey Dr Buffalo 14223	10/9/10
<i>Lucille LAMA</i>	Lucille LAMA	2A 793 Bird Ave	10/9/10
<i>Dorothy Johnston</i>	Dorothy Johnston	793 Bird Ave Buffalo 14201	10/9/10
<i>Richard Santucci</i>	Richard Santucci	145 Hamilton Dr. Tonawanda, NY 14153	10/9/10
<i>Susan Eckerle</i>	Susan Eckerle	6600 Tonawanda Creek Lockport, NY	10/9/10

Signature of Elector	Printed Name of Elector	Residence	Date of Signing
	Sandra Stinger	14 Bradley St. Trompsburg NY 14886	10-9-10
	Raad Yelda Jr.	20025 Buffalo NY 14240-2378	10-9-10
	Patricia Conner	649 W. Ferry St Apt 3 Buffalo NY 14201	10-10-10
	ROBERT W. THOREN	51 ELMWOOD AVE. apt. C	10-10-10
	MICHAEL PARKE	306 VIRGINIA ST BUFFALO, NY	10/10/10
	John Buckley	438 Massachusetts Ave Buffalo NY	10/10/10
	Nicholas Bickford	738 Lafayette Ave. Apt. 4 Buffalo NY	10-10-10
	Michelle Tsoukates	738 Lafayette Ave. Apt. 4 Buffalo NY	10/10/10
	JAMES WEMSTELDER	216 LEXINGTON AVE APT 1 14222	10/10/10
	Tom Vrabel	581 Richmond Ave Upper APT Buffalo NY	10/10/10
	Mike Hunter	1325 Main St apt 216j Buffalo NY	10/10/10
	Ben Fritzsche	126 Fango Ave, Buffalo NY	10/14/10
	Eric Jones	315 Potomac Ave, Buffalo NY	10/4/10
	Vivian A. Lapp	694 South Lane NT 14120	10/19/10
	Kim Curran	Buffalo State College Hamburg 14675	10/14/10
	Meghan Gleason	Buffalo, NY 14214	10/14/10
	Karla Curran	Vannoytown NY 14174	10/14/10
	Jason Chodnick	Buffalo, NY 14201	10/14/10
	Hannah Rebrovich	232 S. Smethport Dr. Amherst, NY 14224	10/14/10
	James Cook Sr	Buffalo State College	10/14/10
	Gwendolyn A. Smith	Buffalo, NY 14222	10/14/10
	Alex Mercado	Buffalo, NY, 14210	10/14/10
	Mia Kenney	Potomac Ave, Buffalo, NY 14213	10/14/10
	MIKKI FREEDMAN	14222 Buffalo, NY 14222	10/14/10
	Felisha Bell	Buffalo, NY 14216	10/14/10
	Mack Barker	Buffo NY 14201	10/14/2010
	Jennifer Ode	Buffalo NY	10/14/10
	Marise Elington	Buffalo, NY 14222	10/14/10
	Courtney Dwyer	North Tonawanda, NY 14120	10/14/10
	Heather Dwyer	1292 Herkel Ave, B.C. NY 14216	10/14/10
	Melissa Hobbs	305 Westgate Rd. Kenmore, NY 14217	10/14/10

#### AFFIDAVIT OF CIRCULATOR

I do swear (or affirm) that I am a registered elector of the State of New York, that my residence is as set forth below; that the signers to the foregoing Petition signed the same with full knowledge of the contents thereof; that their residences are correctly stated therein; that they all reside in the City of Buffalo, New York; that each signed on the date set opposite his or her name; and that to the best of my knowledge and belief, the signers are registered electors of the City of Buffalo, New York.

Sworn to and subscribed before me this 8  
day of November, 2010.

Notary Public

JANET E. MOSS  
Notary Public - State of New York  
No. 01-MO8188745  
Qualified in Erie County  
My Commission Expires 06/09/2012

Signature of Circulator  
Rita Yelda  
Printed Name of Circulator

# PETITION

The undersigned electors of the City of Buffalo, New York, acting in our capacity as residents of this community with an inalienable right to local self-governance, hereby petition and direct the members of the Buffalo City Council, who are sworn to protect the health, safety and welfare of this community, to advertise and then adopt "Buffalo's Community Protection from Natural Gas Extraction Ordinance," which the People of the City have submitted to the members of their Council.

Signature of Elector	Printed Name of Elector	Residence	Date of Signing
<i>Amanda J Paonessa</i>	Amanda J Paonessa	Niagara Falls 14304	OCT 14, 10
<i>Emily Terranova</i>	Emily Terranova	Buffalo NY 1420	OCT 14, 10
<i>Marianna Paonessa</i>	Marianna Paonessa	Buffalo	10/14/10
<i>Came McDonnell</i>	Came McDonnell	Amherst, NY 14206	10/14/10
<i>Mirami Olajima</i>	Mirami Olajima	Buffalo NY 14222	10/14/10
<i>JENNIFER JHUM</i>	JENNIFER JHUM	ASTORIA, NY 11103	10-14-10
<i>Jeffrey Todd</i>	Jeffrey Todd	Tonawanda NY 14150	10-14-10
<i>Dwight Karchel</i>	Dwight Karchel	424 Parkdale Ave	10-14-10
<i>Rashida Jones</i>	Rashida Jones	20 Navel Ave Buffalo NY	10-14-10
<i>Monessa Miller</i>	Monessa Miller	Buffalo NY 14208	10-14-10
<i>Amber Frank</i>	Amber Frank	Buffalo, NY 14222	10-14-10
<i>Anthony Saporito</i>	Anthony Saporito	Buffalo, NY 14222	10-14-10
<i>Staci Hallberg</i>	Staci Hallberg	Buffalo, NY 14222	10-14-10
<i>ESTHER ROGDA</i>	ESTHER ROGDA	Buffalo, NY 14212	10-14-10
<i>Shirley DURAWA</i>	Shirley DURAWA	Buffalo, NY 14206	10/14/10
<i>Denise Schuch</i>	Denise Schuch	Buffalo, NY 14206	10/14/2010
<i>Jeanne Sanson</i>	Jeanne Sanson	Buffalo, NY 14206	10-15-10
<i>103 D DEERT</i>	103 D DEERT	103 Pawtiac	10/16/10
<i>Jeffrey Adams</i>	Jeffrey Adams	533 Baseline Rd. Gett, NY 14072	10/16/2010
<i>Kathleen Jones</i>	Kathleen Jones	45 Seminoe Pkwy, Cheektowatch	10/18/2010
<i>Denise M. Neesham</i>	Denise M. Neesham	Buffalo, NY 14220	10/18/2010
<i>Heather Slone</i>	Heather Slone	Buffalo, NY 14222	10/18/2010
<i>Fata Ibrahim</i>	Fata Ibrahim	Buffalo, NY 14207	10/24/10
<i>MARCIAN M KNIGHT</i>	MARCIAN M KNIGHT	Buffalo NY 14207	10/24/10
<i>Kathleen Jones</i>	Kathleen Jones	Buffalo NY 14207	10/24/10
<i>CASIAN OPRESCU</i>	CASIAN OPRESCU	92 Peter St. Buff. 14202	10/24/10
<i>FRED CERNIJEWSKI</i>	FRED CERNIJEWSKI	108 Peter St	10/24/10
<i>Stephanie Finbel</i>	Stephanie Finbel	Buffalo, NY 14207	10/24/10
<i>Dan Washington</i>	Dan Washington	Buffalo, NY 14207	10/24/10
<i>Denise Barnes</i>	Denise Barnes	1308 WY 14207	10/24/10
<i>A. Kasak</i>	A. Kasak	163 Peter St Buffalo 14207	10/24/10
<i>Marcia Duda</i>	Marcia Duda	168 Peter St	10/24/10
<i>Stanley Burlingame</i>	Stanley Burlingame	158 Farm St	10/24/10
<i>RICHARD CARRIZO</i>	RICHARD CARRIZO	39 Kent St	10/24/10
<i>Theron L. Thorne</i>	Theron L. Thorne	65 Kent St	10-24-10
<i>JOHN HARTZ</i>	JOHN HARTZ	77 Kent St	10-24-10
<i>JULIANA F. SAXER</i>	JULIANA F. SAXER	89 Kent St	10/24/10
<i>Darleen Martin</i>	Darleen Martin	271 Austin St.	10/24/10

Signature of Elector	Printed Name of Elector	Residence	Date of Signing
39. <i>[Signature]</i>	<i>[Signature]</i>	316 Austin Street	10/24/10
40. <i>[Signature]</i>	Bob Morse	395 Tonawanda St	10/24/10
41. <i>[Signature]</i>	Don Friel	15 Progressive	10/24/10
42. <i>[Signature]</i>	DEBORAH MARCUS	17 Progressive	10/24/10
43. <i>[Signature]</i>	KYLE ROBINSON	25 PROGRESSIVE	10/24/10
44. <i>[Signature]</i>	B. 1211	29 PROGRESSIVE	10-24-10
45. <i>[Signature]</i>	Nancy Kozakovich	35 PROGRESSIVE	10/24/10
46. <i>[Signature]</i>	Dennis Herbst	37 PROGRESSIVE	10/24/10
47. <i>[Signature]</i>	Michelle Herbst	41 Progressive ave	10/24/10
48. <i>[Signature]</i>	MARY LASSICK	41 Progressive	10/24/10
49. <i>[Signature]</i>	Anthony Wheeler	67 JOURNAL ST	10/24/10
50. <i>[Signature]</i>	James Moxe	83 PROGRESSIVE AVE	10/24-10
51. <i>[Signature]</i>	Di A. Walker Shump	52 Pine Ridge Rd	10-24-10
52. <i>[Signature]</i>	Sammy J. Freeman	45 2nd Ave. Buffalo	10/24/10
53. <i>[Signature]</i>	Barbara Ackley	77 progressive ave	10/24/10
54. <i>[Signature]</i>	Christina Mages	77 progressive AVE	10/24/10
55. <i>[Signature]</i>	CAROL CODICK	75 PROGRESSIVE AVE	10/24/10
56. <i>[Signature]</i>	David Malczewski	34 Howard Ave	10/24/10
57. <i>[Signature]</i>	Thomas Carey II	2293 Niagara St	10/24/10
58. <i>[Signature]</i>	Jonathan Adams	81 PROGRESSIVE	10/24/10
59. <i>[Signature]</i>	George R. Ackley	84 Progressive	10/24/10
60. <i>[Signature]</i>	Josh Fox	37 GRAND AVE	10/30/10
61. <i>[Signature]</i>	Adam L. Giancarlo	175 Norwalk Ave.	10/30/10
62. <i>[Signature]</i>	Heather Kuhn	1325 Main St. apt 216 Buffalo 14205	10/30/10
63. <i>[Signature]</i>	MICHAEL A. ALSPAUGH	20 ARUNDEL RD 14216	10/30/10
64. <i>[Signature]</i>	MICHAEL P. SMITH	789 KINMORE AVE 14212	10/30/10
65. <i>[Signature]</i>	ELIE DERRITTE	415 SUMMER ST 14213	10/30/10
66. <i>[Signature]</i>	Matthew Lopennas	333 Auburn Ave 14213	10/30/10
67. <i>[Signature]</i>	Paul Maine	246 Jersey St. Bk. 14201-1043	10-30-10
68. <i>[Signature]</i>	Ellen Gibson	15 Mayfair Ln Bk 14203	10/30/10
69. <i>[Signature]</i>	James M. Beardsley	15 Mayfair Lane, Buffalo, NY 14201	10-30-2010

#### AFFIDAVIT OF CIRCULATOR

I do swear (or affirm) that I am a registered elector of the State of New York, that my residence is as set forth below; that the signers to the foregoing Petition signed the same with full knowledge of the contents thereof; that their residences are correctly stated therein; that they all reside in the City of Buffalo, New York; that each signed on the date set opposite his or her name; and that to the best of my knowledge and belief, the signers are registered electors of the City of Buffalo, New York.

Sworn to and subscribed before me this 8  
day of November, 2010.

*[Signature]*  
Notary Public

JANET E. MOSS  
Notary Public - State of New York  
No. 01-MO6188745  
Qualified in Erie County  
My Commission Expires 06/09/2012

*[Signature]*  
Signature of Circulator  
*[Signature]*  
Printed Name of Circulator



# PETITION

The undersigned electors of the City of Buffalo, New York, acting in our capacity as residents of this community with an inalienable right to local self-governance, hereby petition and direct the members of the Buffalo City Council, who are sworn to protect the health, safety and welfare of this community, to advertise and then adopt "Buffalo's Community Protection from Natural Gas Extraction Ordinance," which the People of the City have submitted to the members of their Council.

Signature of Elector	Printed Name of Elector	Residence	Date of Signing
1. <i>Leann Hall</i>	Leann Hall	12 DE Ferry St. Buffalo NY 14201	10-16-10
2. <i>Annemarie Jason</i>	Annemarie Jason	61 Claremont Ave. Buffalo NY 14222	10/16/10
3. <i>Paul Blum</i>	Paul Blum	66 Summer St Buffalo NY 14201	10/16/10
4. <i>Paul Sullivan</i>	Paul Sullivan	865 Richmond Ave Buffalo NY 14201	10/16/10
5. <i>P. R. Price</i>	P. R. Price	701 Lafayette Ave Buffalo NY 14201	10/16/10
6. <i>Edward D. Bickford</i>	Edward D. Bickford	20 Lexington 2A Buffalo NY 14222	10-19-10
7. <i>Rachel Schnecko</i>	Rachel Schnecko	355 Ashland Ave Buffalo NY 14222	10-19-10
8. <i>Carl deVryer</i>	CARL deVRYER	Box 653 Buffalo NY 14205	10-19-10
9. <i>Sue Kirkland</i>	Sue Kirkland	789 West Ferry St Buffalo NY 14201	10-19-2010
10. <i>Joel Miller</i>	Joel Miller	811 Potomac Buffalo NY 14201	10-19-2010
11. <del><i>Charles Ferguson</i></del>	<del>Charles Ferguson</del>	<del>773 Elmwood Ave Buffalo NY 14222</del>	<del>10-19-10</del>
12. <i>Patrick Gervase</i>	Patrick Gervase	773 Elmwood Ave Buffalo NY 14222	10-19-10
13. <i>Beverly Hirstand</i>	Beverly Hirstand	239 Parkside Buffalo NY 14201	10-19-10
14. <i>Ron DeLeonardis</i>	Ron DeLeonardis	581 Richmond Ave Buffalo NY 14201	10-19-10
15. <i>Rosa M. Perez</i>	ROSA M. PEREZ	679 Peter St Buffalo NY 14201	10-24-10
16. <i>Patricia Busse</i>	PATRICIA BUSSE	79 Peter St Buffalo NY 14201	10-24-10
17. <i>James Young</i>	James Young	81 Peter St Buffalo NY 14201	10-24-10
18. <i>J. Brown</i>	J. Brown	193 Schuck Buffalo NY 14201	10-24-10
19. <i>J. Holman</i>	J. Holman	Buffalo NY 14201	10-24-10
20. <i>Kristen Fenzel</i>	Kristen Fenzel	139 Peter St Buffalo NY 14201	10-24-10
21. <i>Keith Meikler</i>	Keith Meikler	161 Peter St Buffalo NY 14201	10-24-10
22. <i>Wayne Swanson</i>	Wayne Swanson	120 Peter St Buffalo NY 14201	10-24-10
23. <i>William O'Hara</i>	WILLIAM O'HARA	68 Bayview Buffalo NY 14201	10/24/10
24. <i>Charles Smith</i>	Charles Smith	97 Kent St Buffalo NY 14201	10/24/10
25. <i>Michael LoCuto</i>	Michael LoCuto	93 Willow St Buffalo NY 14201	10/24/10
26. <i>Oliver Morse</i>	Oliver Morse	23 Ideal Street Buffalo NY 14201	October 26 2010
27. <i>Susan Holland</i>	Susan Holland	750 Auburn Ave Buffalo NY 14201	10/27/2010
28. <i>Michelle McHaffey</i>	Michelle McHaffey	701 Lafayette Ave Buffalo NY 14201	10/27/2010
29. <i>Joan Heath</i>	Joan Heath	20 Bradford Ave Buffalo NY 14201	10/27/2010
30. <i>Steve Glatter</i>	Steve Glatter	67 Arnold St Buffalo NY 14201	10/27/2010
31. <i>DAVID BRAND</i>	DAVID BRAND	286 Shenandoah St Buffalo NY 14201	10/27/2010
32. <i>Vince Spiller</i>	Vince Spiller	208 Woodman Rd Buffalo NY 14201	10/27/2010
33. <i>Kathleen VonHorn</i>	Kathleen VonHorn	282 Tremaine Buffalo NY 14201	10/27/2010
34. <i>Willie Parker</i>	Willie Parker	39 Conover St Buffalo NY 14201	10-27-10
35. <i>Floyd Dawson</i>	Floyd Dawson	289 Buffalo NY 14201	10-27-10
36. <i>Samantha Posner</i>	Samantha Posner	434 Hoyt Buffalo NY 14201	10-27-10

Signature of Elector	Printed Name of Elector	Residence	Date of Signing
<i>Felipe V. Vilella</i>	Felipe Vilella	61 College St.	10/27/10
<i>Kasey Shea</i>	Kasey Shea	159 Bayview St.	10/27/10
<i>Stephane Duh</i>	Stephane Duh	1363 Delaware Ave	10/27/10
<i>Joe Ruggiero</i>	Joe Ruggiero	4341 1st St.	10/27/2010
<i>Salvatore Calandra</i>	Salvatore Calandra	1015 Elwood St.	10/27/2010
<i>Brian Doyle</i>	Brian Doyle	2001 Main St.	10/27/10
<i>Erika Hoerner</i>	Erika Hoerner	593 Potomac	10/27/10
<i>John Thill</i>	John Thill	2704 Main St	10/27/10
<i>David Dineen</i>	David Dineen	400 Fong's Alley (W)	10-27-10
<i>Jeremiah Pruitt</i>	Jeremiah Pruitt	307 Barnes St.	10-27-10
<i>Shurt Silverschmidt</i>	Shurt Silverschmidt	376 Bryant St	10-27-10
<i>Nicoli Ringel</i>	Nicoli Ringel	433 11th Ave	10-27-10
<i>DAVID Pohling</i>	DAVID Pohling	510 Connecticut St	10-27-10
<i>Paul Steinbrucker</i>	Paul Steinbrucker	556 Reform Ave	10-27-10
<i>Brenda Lehman</i>	Brenda Lehman	128 Howell St.	10-27-10
<i>John J. Kottler</i>	John J. Kottler	217 Ashland Ave	10/27/10
<i>Laura L. Tork</i>	Laura L. Tork	398 Parkdale Ave, 5th fl.	10/27/10
<i>Jeff Moringa</i>	Jeff Moringa	30 Yale Place	11/6/10
<i>Katherine Oakes</i>	Katherine Oakes	100 Plymouth Ave Buffalo	11/6/10
<i>Jay Mylecos</i>	Jay Mylecos	92 Flower St Buffalo	11/7/10
<i>Ronald C. Smith</i>	Ronald C. Smith	240 Saranac Buffalo	11/7/10
<i>Elaine S. Sica</i>	Elaine S. Sica	108 Saranac Blvd	11/7/10
<i>Tamela Stillwell</i>	Tamela Stillwell	126 Saranac Ave Buffalo	11/7/10
<i>Ken Molitor</i>	Ken Molitor	146 Saranac Ave Buffalo	11/7/10
<i>Carlie Hanganer</i>	Carlie Hanganer	175 Fairview Ave	11/7/10
<i>Kevin Lullav</i>	Kevin Lullav	86 Rees St. Buffalo	11/7/10
<i>Catherine Kaczowka</i>	Catherine Kaczowka	608 W. Delaware Ave	11/7/10
<i>Brandon S. Ligh</i>	Brandon S. Ligh	1300 Elmwood Newman Hall	11/7/10
<i>Anthony Celestin</i>	Anthony Celestin	1300 Elmwood Porter Hall	11/7/10
<i>Michael M. M. M.</i>	Michael M. M. M.	70 Camille St Buffalo	11/7/10
<i>Ellen Koryvet</i>	Ellen Koryvet	262 Swan St	11/7/10
<i>Kathryn Fougere</i>	Kathryn Fougere	192 W. Tupper Buffalo, NY 14201	11/07/10

#### AFFIDAVIT OF CIRCULATOR

I do swear (or affirm) that I am a registered elector of the State of New York, that my residence is as set forth below; that the signers to the foregoing Petition signed the same with full knowledge of the contents thereof; that their residences are correctly stated therein; that they all reside in the City of Buffalo, New York; that each signed on the date set opposite his or her name; and that to the best of my knowledge and belief, the signers are registered electors of the City of Buffalo, New York.

Sworn to and subscribed before me this 8  
day of November, 2010.

*Janete Moss*  
Notary Public

*R. Yelda*  
Signature of Circulator  
*Rita Yelda*  
Printed Name of Circulator

JANETE MOSS  
Notary Public - State of New York  
No. 01-MO0188746  
Qualified in Erie County  
My Commission Expires 06/09/2012



# PETITION

The undersigned electors of the City of Buffalo, New York, acting in our capacity as residents of this community with an inalienable right to local self-governance, hereby petition and direct the members of the Buffalo City Council, who are sworn to protect the health, safety and welfare of this community, to advertise and then adopt "Buffalo's Community Protection from Natural Gas Extraction Ordinance," which the People of the City have submitted to the members of their Council.

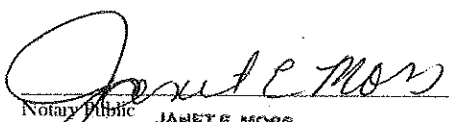
Signature of Elector	Printed Name of Elector	Residence	Date of Signing
1. <i>Carla Bartles</i>	Carla Bartles	Buffalo NY	10-6-10
2. <i>V. Ferdinand</i>	Vanessa Ferdinand	Buffalo, NY	10-6-10
3. <i>Carlina Sine</i>	Carlina Sine	Buffalo, NY	10-6-10
4. <i>Jena Heimerl</i>	Jena Heimerl	1259 French Rd. NY	10-6-10
5. <i>Mike Dwyer</i>	Mike Dwyer	4259 Wildwood Dr. Buffalo NY 14221	10-6-10
6. <i>Victoria Boden</i>	Victoria Boden	570 Connecticut St	10-7-10
7. <i>Tony Haynes</i>	Tony Haynes	Buffalo NY	10-7-10
8. <i>Cliff Cawthon</i>	Cliff Cawthon	Amherst, NY	10-7-10
9. <i>Cliff Cawthon</i>	Cliff Cawthon	Amherst, NY	10-7-10
10. <i>Mackintosh Barker</i>	Mackintosh Barker	106 Elmwood #1 Bflo NY 14201	10-7-10
11. <i>Jonathan Gallo</i>	Jonathan Gallo	216 Lexington Ave apt	10-7-10
12. <i>Tom Vabel</i>	Tom Vabel	581 Richmond Avenue upper apt	10-7-10
13. <i>Patricia Cerasole</i>	Patricia Cerasole	649 W Ferry St 3	10-7-10
14. <i>Marika Woods</i>	Marika Woods	49 Mariner Bldg, NY	10-10-10
15. <i>Danielle Peters</i>	Danielle Peters	567 Delaware Ave. Buffalo NY	10-10-10
16. <i>John E Robert</i>	John E Robert	61 Berkeley Pl Buff NY 14209	10/10/10
17. <i>Mary Winiarski</i>	MARY WINIARSKI	1830 Ave	10/10/10
18. <i>Monica Janner</i>	Monica Janner	Buff NY	10/10/10
19. <i>Morgan Marangstar</i>	Morgan Marangstar	Buffalo, NY 14222	10/10/10
20. <i>Joseph Embis</i>	Joseph Embis	Buffalo, NY 14214	10/10/10
21. <i>Daniel Gernerek</i>	Daniel Gernerek	Kenmore, NY 14217	10/10/10
22. <i>Kathy Bran</i>	Kathy Bran	119 Elmwood A201	10/10/10
23. <i>Joy Knowlton</i>	Joy Knowlton	162 Lafayette Ave 14213	10/13/2010
24. <i>John M. Winkler</i>	John M. Winkler	2913 Wilket	10-15-2010
25. <i>Julie Parker</i>	Julie Parker	122 Pontiac St 14206	10-15-10
26. <i>Julie Parker</i>	Julie Parker	102 Pontiac	10-15-10
27. <i>Deborah J. Urbanik</i>	Deborah J. Urbanik	81 Pontiac St	10-15-10
28. <i>Steve Schmidt</i>	Steve Schmidt	171 Lisbon Ave	10-19-10
29. <i>John Misk</i>	John Misk	Buffalo State College	10-18-10
30. <i>Jane Piazza</i>	Jane Piazza	33 Linwood Ave #304, 14207	10/18/10
31. <i>Ashley Cerasole</i>	Ashley Cerasole	Buffalo NY	10-18-10
32. <i>Linda Schneekloth</i>	Linda Schneekloth	Buffalo, NY	10-19-10
33. <i>Katharine Tussing</i>	Katharine Tussing	Buffalo, NY	10-19-10
34. <i>Louise Torczok</i>	Louise Torczok	87 Stillwell Kenmore 14217	10-19-10
35. <i>Ceroline J. Winkler</i>	Ceroline J. Winkler	8711 Beach Chautauque 14225	10/19/10
36. <i>Joseph T. Feli</i>	Joseph T. Feli	86 Trinity Pl Buffalo NY	10/19/10
37. <i>Patricia A. Shelly</i>	PATRICIA A. SHELLY	395 PORTER AVE, BUFFALO NY	10-19-10

Signature of Elector	Printed Name of Elector	Residence	Date of Signing
39. Carl DeViver	CARL DEVIVER	BUFFALO NY 14215	10/19/10
40. Judy Fitzgerald	Judy Fitzgerald	Buffalo NY 14223	10/19/10
41. Roman Mucunda	Roman Mucunda	Collins NY 14141	10/19/10
42. Richard Traft	Richard Traft	Buffalo NY 14216	10/19/10
43. Sharon Lippe	Sharon Lippe	Buffalo NY 14226	10/19/10
44. Mauri J Coover	Mauri J Coover	Buffalo NY 14216	10/19/10
45. Yvonne C. Lefcourt	Yvonne C. Lefcourt	Buffalo, N.Y. 14222	10/19/10
46. Jessica Wuertke	JESSICA WUERSTKE	BUFFALO NY 14222	10/19/10
47. Nan Simpton	Nan Simpton	Amherst, NY 14226	10/19/10
48. David D. Stout	David D. Stout	Angola, NY 14006	10-19-10
49. Brenda Lane	Brenda Lane	Buffalo NY 14216	10/19/10
50. Carl Parnella	CARL PARNELLA	LLA, BUFFALO 14207	10/19/10
51. Carmela Melender	Carmela Melender	Buffalo NY 14207	10-23-10
52. Deborah Baker	Deborah Baker	Buffalo NY 14207	10-24-10
53. Coletha Smith	Coletha Smith	117 Peter St	10-24-10
54. Marilynn Gasak	MARILYN GASAK	158 PETER	10/24/10
55. Sandra Carnrike	Sandra Carnrike	136 Peter St	10/24/10
56. Susan M. Newhard	Susan M. Newhard	135 Peter St, Buffalo 14207	10/24/10
57. James Johnson	James Johnson	238 Herkimer Bldg 14213	10-24-10
58. Charlene Bell	Charlene Bell	43 Kail St Bldg 14207	10/24/10
59. John Wondrich	John Wondrich	64 Carl St Bldg 14207	10/24/10
60. Michael Nasca	Michael Nasca	52 Lovering Ave Bldg 14216	10/24/10
61. Michael & Lisa Vogt		20 Progressive Ave 14207	10/24/10
62. Alexandria Stallworth	Alexandra Stallworth	24 Progressive 14207	10/24/10
63. Sandy Fantauzzo	SANDY FANTAUZZO	32 Progressive Ave 14207	10/24/10
64. Lisa Bleckman	Lisa Bleckman	48 Progressive Ave 14207	10/24/10
65. Heather Bruce	HEATHER BRUCE	60 PROGRESSIVE	10/24/10
66. Beverly Bryant	BEVERLY BRYANT	62 PROGRESSIVE	10/24/10
67. Russell Smith	RUSSELL SMITH	64 PROGRESSIVE	10/24/10
68. Joanne M. Murray	Joanne M. Murray	78 Progressive Ave	10/24/10

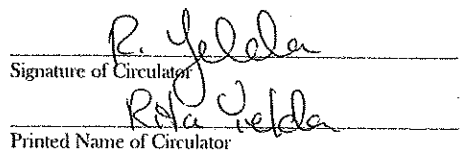
### AFFIDAVIT OF CIRCULATOR

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Sworn to and subscribed before me this 8 day of November, 2010.



Notary Public  
JANET E. MOSS  
Notary Public - State of New York  
No. 01-MO6188745  
Qualified in Erie County  
My Commission Expires 06/09/2012

  
Signature of Circulator  
Rita Felder  
Printed Name of Circulator

10-24-10 PM 2:07

FILED TO THE COMMITTEE ON LEGISLATION.

# In Collins, effects of gas drilling are debated

Updated: October 18, 2010, 11:29 PM

When U.S. Energy Development Corp. began drilling for natural gas on a rural plot of land in Collins, Natalie Brant welcomed the prospect of cheaper gas to heat her home.

But over the past two years, Brant, her husband, Geno, and each of their eight children developed an array of ailments that had no obvious cause.

Splitting headaches. Lingering muscle pain. Numbing fatigue.

Then, in July, Geno Brant stumbled across HBO's "Gasland." The documentary contends a widely used method of drilling for natural gas, known as hydraulic fracturing, is making people sick.

Geno Brant wanted to see if methane gas was getting into his family's water supply, so he ran the kitchen tap into a plastic bottle and then held a lighter to the water. It caught on fire.

"He woke me up and I thought he was goofing around," Natalie Brant said. "To me, that's not normal at all. I was scared -- shocked and scared."

Since July, Natalie Brant has complained to anyone who will listen that U.S. Energy isn't living up to its promises and isn't drilling safely.

But state environmental regulators say methane gas is found naturally in well water in this part of the area, and there's no proof the drilling is causing the family's health problems.

And U.S. Energy officials said they have tried to help the Brants and their neighbors, but the gas in their water is coming from a nearby septic system.

"It's sewer gas, essentially," said Douglas K. Walch, the U.S. Energy president. "We see this a lot in the country."

Still, the residents say they worry about the long-term health consequences. They stopped drinking the well water but they still have to use it to bathe, clean dishes and wash clothes.

Several of the families plan to file a lawsuit against U.S. Energy, hiring the same lawyer who has sued energy companies in Pennsylvania, where gas drilling is more extensive.

The companies use a procedure known as hydraulic fracturing -- often shortened to hydro fracking, or fracking -- to get at gas or oil stored in the rock.

"I believe that the state of the science of hydro fracking is such that it can't be done safely, or you can't be sure it's being done safely," said Richard J. Lippes, a veteran environmental lawyer and former president of the Sierra Club in New York.

Drilling for natural gas is on the rise because energy companies have developed better technology and procedures to extract the gas from shale and other rock deposits, said Gary G. Lash, a geosciences professor and director of Fredonia State College's Shale Research Institute.

FILED  
CITY CLERK

2010 NOV -9 PM 1:48

ccp # 45  
11/16/10

The northeast, notably Pennsylvania, is becoming a new center for gas drilling and this is raising concerns locally.

"I think [fracking] becomes a problem when we have a stake in it," said Lash, whose institute receives funding from some companies that drill for oil and gas, but not U.S. Energy.

There are two basic techniques, vertical and horizontal fracking, that involve drilling into the ground and then sending water under high pressure into the well to break up the rock and release the gas inside.

Vertical fracking generally requires a lower volume of water, anywhere from 40,000 to 100,000 gallons of water per well, while horizontal fracking can require millions of gallons.

Companies would need to perform high-volume, horizontal fracking in the Marcellus Shale, a potentially rich deposit of natural gas in the Southern Tier.

Gov. David A. Paterson in 2008 ordered the state Department of Environmental Conservation to review the high-volume form of horizontal fracking.

In contrast, Pennsylvania allows all forms of fracking, and the procedure has been used to create 19,000 natural gas and oil wells since 2005, said Scott R. Perry, director of the Bureau of Oil and Gas Management for Pennsylvania's Department of Environmental Protection.

Perry said he hasn't seen any evidence that chemical-laced fracking water has contaminated drinking water during the fracking process, but the state has seen water supplies tainted by improper handling of fracking chemicals at the surface.

Methane gas also has migrated into drinking water from improperly sealed or poorly constructed shallow gas wells.

This isn't a health issue, he said, but it is a concern because methane gas can explode if it builds up in a confined space.

Lippes is involved in two suits filed by people who live near fracked wells in Pennsylvania.

Now the Buffalo attorney is representing the Brants and four or five other families along Route 39, where they say U.S. Energy began drilling in 2008.

U.S. Energy has about 520 wells in New York state, all in Western New York, Walch said. Nearly all were fracked.

"It is completely safe -- it's been proven to be completely safe," said Walch, the president.

U.S. Energy pays for permission from landowners to drill on their property, and the Brants' landlord, Demyan Muchnik, gave the company the right to drill there two years ago.

There are two gas wells on Muchnik's property, which houses the Brants, the Muchniks and another family, the McCaslins.

Muchnik receives \$5 per acre each year -- or \$585 for his 117 acres -- from U.S. Energy as well as the right to some gas to heat his house but not the other buildings on his land.

Soon after the drilling began and for the next two years, members of the families say, they and their children have developed mysterious ailments.

"I have a lot of muscle pain, fibromyalgia. A lot of fatigue that goes with the fibromyalgia," said Dawn McCaslin, who was diagnosed about two years ago.

Natalie Brant said one daughter missed so much school -- 32 days in a row at one point -- that a doctor thought she had mononucleosis.

And her 17-year-old son recently was diagnosed with asthma and said he gets tired and dizzy, with severe headaches.

"We're not strong enough -- we always want sleep," said Demyan Muchnik, who moved here 19 years ago with his family as refugees from Moldova.

The Brants have eight children, ages 4 to 19. They share one water well with the Muchniks and the McCaslins, and the families say they didn't have water problems before the drilling.

"Our water was crystal clear before this," Natalie Brant said.

Now, the water comes out cloudy, with a yellowish or grayish tint, and when the water sits in a glass or bowl for an extended period of time, flecks of sediment settle to the bottom.

When the Brants first became concerned about the effects of the drilling in July, they contacted a WIVB-TV reporter who later called U.S. Energy.

The company agreed to put up the Brants and the McCaslins in a hotel while it tried to find out what was causing the problems.

The company hired a contractor to test the water from the well. It also paid to install a system that aerates the water, allowing methane to escape.

The suit brought by the Route 39 neighbors will argue that U.S. Energy isn't conducting its drilling safely and isn't properly disposing of the waste water left over from the fracking process, said Lippes.

The neighbors say they are turning to a lawsuit because they haven't gotten satisfaction from U.S. Energy or various state and local agencies.

Natalie Brant contacted the Attorney General's Office first, which directed her to the state Health Department, which told her that the Erie County Health Department had jurisdiction.

Officials from the county Health Department have been out to the Muchniks' property, most recently last week, when an engineer talked to Natalie Brant and inspected the water well and the aerating system set up by U.S. Energy.

He did not take a water sample because the county Health Department does not have the required resources or expertise, said Scott J. Zimmerman, director of public health laboratories, epidemiology and environmental health for the county Health Department.

Private drinking wells are not regulated in New York, Zimmerman said.

However, if it's determined that contamination in the well is a "larger, community-wide health issue," the department could take action, he said.

The DEC doesn't support the residents' belief that the fracking caused gas to get into their water and make them sick.

The agency and Lash, the Fredonia State researcher, said methane gas can occur naturally in well water in this area.

And the DEC said the gas in the water is not a health threat.

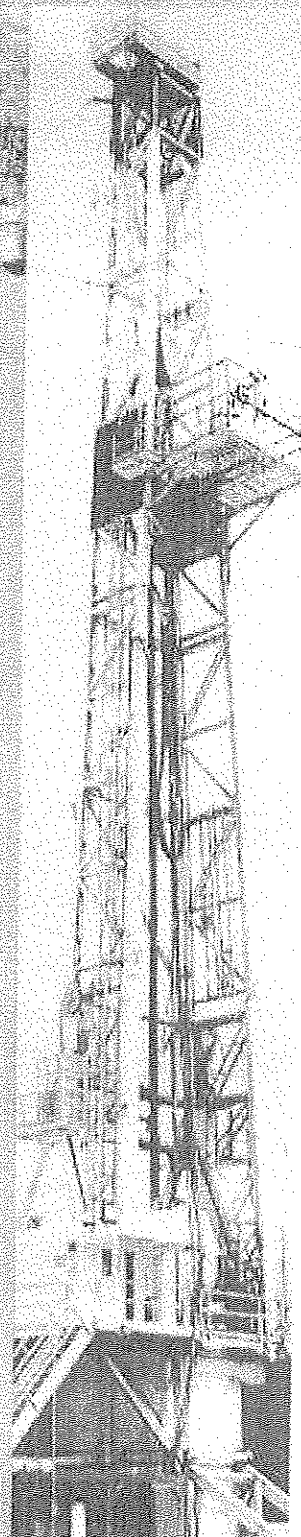
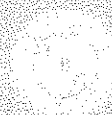
**DEP**

New York State Department of  
Environmental Conservation

**FINAL IMPACT ASSESSMENT REPORT**  
Impact Assessment of Natural Gas  
Production in the New York City  
Water Supply Watershed

December 2009

Reviewed by:





## Executive Summary

This report presents the results of an assessment performed by the New York City Department of Environmental Protection (NYCDEP) and its consultants, the Joint Venture of Hazen and Sawyer, P.C., and Leggett, Brashears and Graham, Inc., evaluating potential impacts to the NYC water supply resulting from development of natural gas resources in the Marcellus shale formation. The Marcellus<sup>1</sup> shale is one of the largest potential sources of developable energy in the U.S. and covers an area of 95,000 square miles; the New York State portion is approximately 18,700 square miles. The Catskill and Delaware watersheds that provide 90 percent of New York City's unfiltered drinking water supply are underlain by relatively thick sections of the Marcellus that are expected to have high gas production potential and be targeted for development. Within the watershed, there are approximately 1,076 square miles that are not currently protected and are potentially available for the placement of well pads, impoundments, chemical storage, and other elements of natural gas drilling.

### Development Activities

Based on densities of development in other shale gas formations in the United States, the area of unprotected or nominally developable land in the watershed, and the number of wells needed to efficiently exploit the resource, it is estimated that between 3,000 and 6,000 gas wells could be constructed in the watershed in the next two to four decades. Initial rates of development would be relatively low (5 to 20 wells per year), but could escalate rapidly to 100 to 300 or more wells per year under favorable economic and regulatory conditions.

Extraction of natural gas from the Marcellus and other shale formations relies on horizontal drilling and high-volume hydraulic fracturing (fracking). A Marcellus well in the New York City (NYC) watershed region would likely be drilled vertically to a depth of 4,000 to 6,000 feet, and extend horizontally a comparable distance through the target shale formation. Natural gas extraction requires that the shale be hydraulically fractured along the lateral portion of the well to increase the permeability of the shale and allow gas to flow into the well at economically viable rates. The fracturing process involves pumping three to eight million gallons (MG) of water and 80 to 300 tons of chemicals into the well at high pressures over the course of several days. Roughly half the injected solution returns to the surface as "flowback" water containing fracturing chemicals plus naturally occurring and often very high levels of total dissolved solids, hydrocarbons, heavy metals, and radionuclides. Flowback water is not amenable to conventional wastewater treatment, and must be disposed of using underground injection wells or industrial treatment facilities. The region currently has insufficient treatment and disposal capacity to handle the expected wastewater volumes.

Water for the fracturing process is typically drawn from surface water bodies and trucked to the drill site; local groundwater supplies may also be used if available. Hauling of water, wastewater, and equipment to and from the drill site requires on the order of 1,000 or more truck trips per well. The entire process, from site development through completion, takes approximately four to ten months for one well. Multiple horizontal wells are typically drilled from a common well pad roughly five acres in size. One multi-well pad can accommodate six or more wells and can

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<sup>1</sup> It should be noted that there are other gas-bearing formations such as the Utica Shale that may be targeted for development in the future.



recover the natural gas from a spacing unit covering a maximum of one square mile. New York requires that all wells from a pad must be drilled within three years of the first well, so sites will experience a relatively high and constant level of heavy industrial activity for at least one and up to three years. The fracturing process may be repeated multiple times over the life of a well to restore declining gas production rates. Wells will generally discharge poor quality brine water from the target formation over their useful life.

Table ES-1, described in more detail in Section 4.1, illustrates the magnitude of cumulative water, wastewater, and chemical volumes associated with large-scale hydraulic fracturing operations for a 6,000 well "full build-out" scenario, with and without refracturing.

Table ES-1: Cumulative Water, Wastewater, and Chemical Volumes Associated with Hydraulic Fracturing

Parameter (units) <i>Estimate (source)</i>	Without Refracturing	With Refracturing	
		10-Year Interval	5-Year Interval
Total Number of Wells	6,000	6,000	6,000
<b>CUMULATIVE BASIS</b>			
Total Number of Frack Jobs <i>Full build-out, high scenario</i>	6,000	24,000	48,000
Frack Chemicals Used (tons) <i>1.0% of fracture fluid</i>	1,000,000	4,000,000	8,000,000
Waste TDS (tons) <i>100,000 mg/l TDS (dSGEIS)<sup>2</sup></i>	12,510,000	27,522,000	47,541,000
<b>ANNUAL BASIS</b>			
Water Demand (mgd) <i>4 MG per frack job</i>	3.6 to 5.5	5.5 to 8.2	11.7 to 14.2
Wastewater Production (mgd) <i>50% Flowback + 0.075 MG/yr Produced Water</i>	2.6 to 3.5	3.9 to 5.3	6.7 to 8.4
Waste TDS for Disposal (tons/day) <i>100,000 mg/l TDS in waste (dSGEIS)<sup>2</sup></i>	1,100 to 1,500	1,600 to 2,200	2,800 to 3,500
Water Req'd to Dilute TDS to 500 mg/l (mgd)	500 to 700	800 to 1,100	1,300 to 1,700
Frack Chemicals (tons/day) <i>1.0% of fracture fluid</i>	150 to 230	230 to 340	490 to 590
<b>Notes:</b> 1. Ranges describe the median and the maximum of the annual average values for each development year. Data for the no-refracturing scenario are drawn from the 20-year period of well development. Data for the refracturing scenarios are drawn from the full 60-year period of development and refracturing. 2. The dSGEIS reports median and maximum values of TDS as 93,200 mg/l and 337,000 mg/l, respectively. The concentration of TDS in flowback reportedly increases with time. The determination of median value may include relatively low concentration samples from initial flowback.			

### Potential Impacts

The West-of-Hudson watershed is a pristine, largely undisturbed landscape, with only minimal industrial activities. These natural and land use factors combine to yield water of very high quality with little or no chemical contamination. Natural gas well development in the West-of-Hudson watershed at the rates and densities observed in comparable formations will be accompanied by a level of industrial activity and heightened risk of water quality contamination that is inconsistent with the expectations for unfiltered water supply systems.

Intensive natural gas well development in the watershed brings an increased level of risk to the water supply: risk of degrading source water quality, risk to long-term watershed health and the City's ability to rely on natural processes for what is accomplished elsewhere by physical and chemical treatment processes, risk of damaging critical infrastructure, and the risk of exposing watershed residents and potentially NYC residents to chronic low levels of toxic chemicals. In addition to surface risks to the watershed, extensive hydraulic fracturing of horizontal wells will present subsurface contamination risks via naturally occurring faults and fractures, and potential alteration of deep groundwater flow regimes, as indicated by the geological cross-section presented as Figure ES-1.

Each of these risks is discussed in greater detail in this document. They have been identified based on review of the progression of natural gas development in other areas, documented incidents of surface water and shallow groundwater contamination associated with natural gas resource development, and review of regional geological features. NYC operates over 100 miles of water supply tunnels west of the Hudson River, the construction of which provided direct experience with respect to faults and deep fluid migration through bedrock. The assessment of risks to the City's water supply system takes into account seepages of methane and deep formation water, and faults and other natural geological features encountered during tunnel construction. As shown in Figure ES-2, water supply tunnel routes intersect numerous geological faults and fractures, many of which extend laterally for several miles, and vertically through several underlying geological strata. Each of these features represents an existing potential pathway for fluid migration.

The difficulty of remediating diffuse contamination and other risks once allowed into the environment, and the potentially catastrophic consequences of damage to critical water supply infrastructure, make clear that a conservative approach towards natural gas drilling in the NYC watershed and in the vicinity of infrastructure is warranted. In short, the rapid and widespread industrialization of the watershed resulting from natural gas drilling would upset the balance between watershed protection and economic vitality that the City, its State and federal regulators, and its upstate partners have established over the past 15 years.

Development of natural gas resources using current technologies thus presents potential risks to public health and would be expected to compromise the City's ability to protect the watershed and the continued, cost-effective provision of a high-purity water supply. A robust assessment of risks from drilling would consider site-specific factors assessed on a well-by-well basis and would consider detailed knowledge of local fracture, infrastructure, hydrologic, and other conditions at a finer scale than watershed-level analysis. In recognition of the possibility that horizontal drilling and hydraulic fracturing may one day be allowed to proceed, measures for reducing some, but not all, risks to water quality and water supply infrastructure are summarized in an appendix.

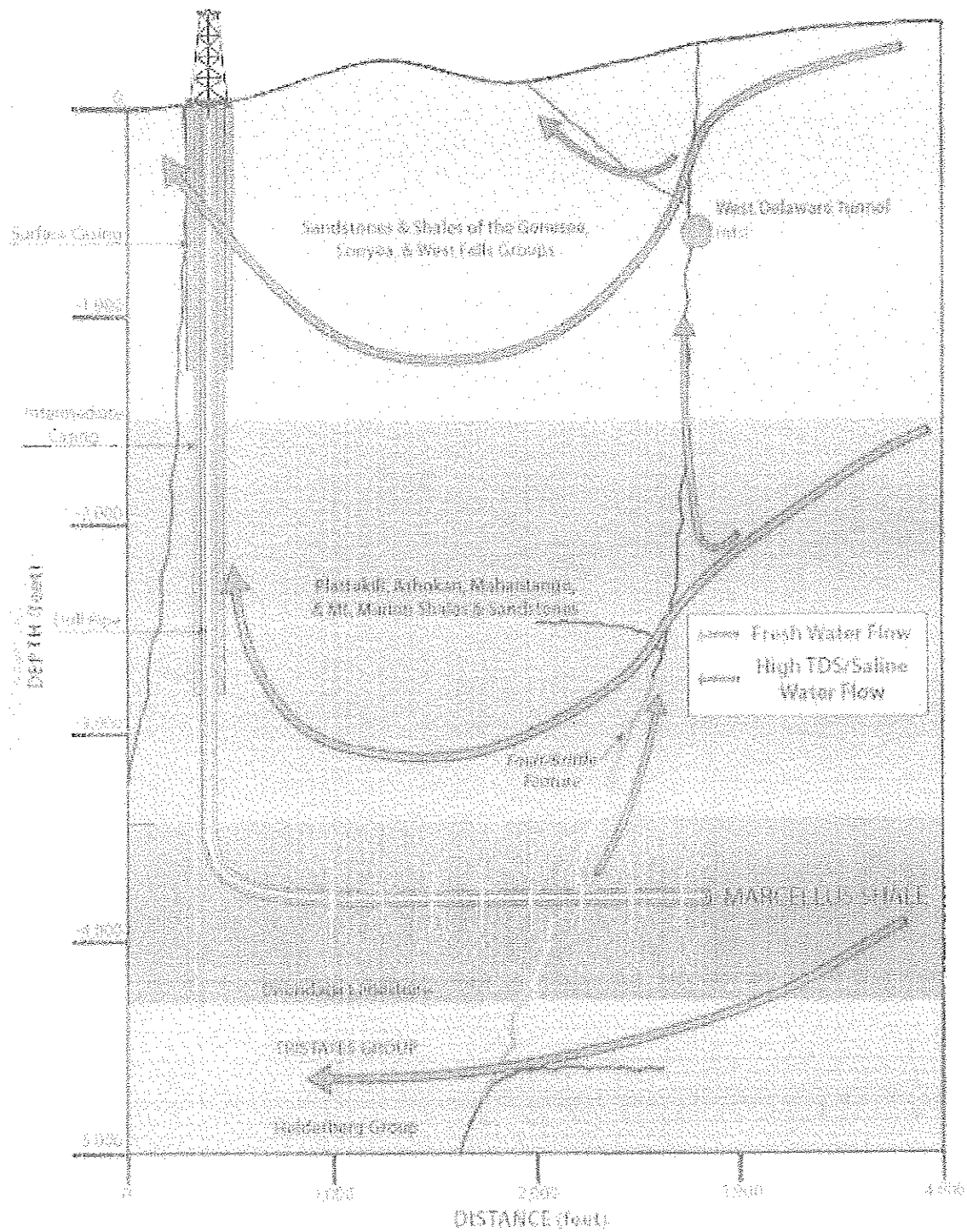


Figure ES-1: Potential Flow Disruption and Contamination Mechanisms

## Section 5: Summary

This section summarizes the impacts of natural gas development using horizontal drilling/high-volume hydraulic fracturing on the NYC water supply watershed and infrastructure.

### *Rate and Density of Well Development in the NYC Watershed*

Reasonably foreseeable natural gas well development scenarios for the NYC watershed based on experience in comparable formations suggest that under favorable economic and regulatory conditions annual well completion rates would increase from initial rates as low as 5 to 20 wells per year to an average of 100 to 300 wells per year, potentially peaking at 500 wells per year. Consistent with NYSDEC spacing unit requirements and development in other formations, it is estimated that on the order of 3,000 to 6,000 wells could ultimately be drilled and fractured in the NYC watershed. This does not include re-fracturing of the same wells, nor does it include drilling and fracturing of wells to tap natural gas in the Utica, Oriskany, or Trenton/Black River formations underlying the NYC watershed. Development of these formations would require additional well construction but not necessarily new ancillary infrastructure.

Meaningful assessment of risks and impacts must be guided by the scale of natural gas development. Any individual hydraulic fracturing operation poses a relatively small risk to the water supply. But at the rates and densities of development as currently practiced elsewhere in the Marcellus and comparable formations, the likelihood of negative impacts and the subsequent risk to the water supply is substantially higher. When the issue is considered from the standpoint of not one well but of hundreds or thousands of wells, the cumulative risks become significant. Prevention of polluting activities is certain to protect water quality and infrastructure from these cumulative risks. To illustrate minimum mitigation measures that would be required to reduce risks for any one individual impact, Appendix D sets forth certain mitigation strategies.

The following are considered foreseeable risks, and merit detailed consideration:

### *Land Disturbance, Site Activity, and Truck Traffic (Industrialization)*

- High levels of site disturbance, truck traffic and intensive industrial activity, on a relatively constant basis, over a period of decades, and attendant impacts on overall watershed health.
- Trucking activity will be accompanied by provision of equipment and material supply systems (warehouses, garages, support services), gas gathering and pipeline systems, compressor stations, and waste disposal systems.
- Without some limits on the rate or density of development in the watershed, it is reasonable to expect that a significant and relatively rapid industrialization of the NYC watershed could occur.

### *Tunnel Integrity and Subsurface Migration*

- Widespread hydraulic fracking will permanently and irreversibly compromise a significant geological formation that presently constitutes part of the subsurface system that isolates near-surface, fresh water flow regimes from non-potable, highly saline waters of deeper formations.
- The subsurface impact of repeated and extensive fracturing on intervening strata will increase the likelihood of the migration of hazardous chemicals and/or poor quality formation water and infiltration into overlying groundwater, watershed streams, reservoirs, and tunnels.

- The inadvertent extension of fractures beyond the target strata, and long-term changes in subsurface stresses will likely increase the number and capacity of migration pathways through the geologic strata underlying the watershed, and increase the likelihood of subsurface contamination of the water supply system.
- Infiltration of formation or fracking fluids could cause tunnel discharges to exceed NYSDDEC discharge standards even at low infiltration rates.
- Transmittal of pressurized fluids from presently isolated deep formations could expose the external surfaces of the unreinforced concrete tunnel liners to excessive pressures and compromise liner integrity.

#### *Water Withdrawals*

- Despite representing a small portion of overall watershed yield, withdrawals for hydrofracturing could significantly impact commitments for water supply and habitat protection, particularly during periods of drought. The severity of impacts will depend on the amount and timing of withdrawals. Withdrawals while reservoirs are spilling would have little impact. Withdrawals during dry periods could increase the duration of drought watch, warning, or emergency conditions.
- Delaware Basin withdrawals downstream of the NYC West-of-Hudson reservoirs could impact system operations by requiring increased releases to meet in-stream flow requirements. Similarly, withdrawals from the Upper Esopus Creek could require increased releases from Schoharie Reservoir to meet minimum downstream flow requirements.
- Excessive water withdrawals may also impact aquatic habitat and biota.

#### *Chemical Usage*

- Introduction of hundreds of tons per day of fracturing chemicals into the watershed over a period of several decades will likely be accompanied by the gradual dispersion of low levels of toxic chemicals into the environment and potentially the water supply via multiple transport pathways.

#### *Surface Spills*

- A chronic and persistent occurrence of small scale surface spills and contamination incidents will inevitably accompany the thousands upon thousands of fluid transfer activities necessary for widespread hydrofracturing and gas well operation, and can be expected to reduce public and regulatory agency confidence in the quality and safety of the water supply.
- Occasional acute spills that could cause operational impacts, potential MCL violations and further undermine confidence in the ability to maintain current high water quality standards.

#### *Wastewater Treatment and Disposal*

- The flowback and produced waters resulting from hydrofracturing and gas well operations will produce an industrial-strength waste stream characterized by exceptionally high concentrations of a wide range of substances with the potential for adverse health and water quality effects which can be expected to exceed existing treatment and assimilative capacities within a few years.
- There is high level of uncertainty as to whether effective waste treatment processes and sufficient capacity will be available in the future. Sufficient dilution capacity is unlikely to be available. Residuals productions associated with the only presently available treatment

technology could produce a waste stream that amounts to three to four times the dry sludge total disposed of by NYC's fourteen wastewater treatment plants.

- Solids disposal options will be further limited by elevated levels of radioactivity.
- Waste management and transport will likely contribute to a long-term, low level increase in truck traffic and transport of hazardous chemicals.
- Siting of injection wells and/or treatment facilities will add an additional category of industrial activity to the region.
- Widespread use of injection wells, if geologically feasible, would provide additional contaminant transport pathways and could possibly increase low-level seismic activity, increasing opportunity for subsurface contaminant transport.

#### *Filtration Avoidance Determination*

- Given the importance of watershed protection for unfiltered water supply systems, major changes in land use and/or increased levels of industrial activity in the watershed could jeopardize the Filtration Avoidance Determination granted to the Catskill and Delaware water systems and decrease public confidence in the high quality of the NYC water supply.
- In the event that filtration is ultimately required, NYC expects that the current \$10 billion filtration plant design would not be adequate to remove the chemicals that could be introduced into the watershed. Advanced oxidation, granular activated carbon adsorption, and/or membrane filtration processes could be required. All of these advanced processes are significantly more expensive than the current design, and it is quite possible that the available treatment site would not even accommodate the additional treatment technology. Net impacts on overall treatment facility requirements processes would be expected to increase costs by at least 50 percent and possibly more than 100 percent relative to the current design.

Taken together, these potential impacts - some very likely, some less so, many simply unknown - suggest that large-scale horizontal drilling/high-volume hydraulic fracturing in the NYC watershed will substantially increase the overall risk to the NYC water supply compared to current conditions.

This assessment has focused on activities and impacts that would most directly affect NYC's water supply system. Other effects, which for the purposes of this effort have been considered to be secondary, would not necessarily be minor or insignificant. Induced growth, and the economic changes that it would bring, can adversely impact water quality. It often results in additional demand on roads and other local infrastructure, including schools, local water supply and municipal wastewater treatment systems, hospitals and emergency services. Adverse air quality impacts and impacts on flora, wildlife and soil chemistry can also be expected given the level of industrial activity that would accompany hydraulic fracturing and horizontal drilling operations, particularly if implemented at rates and densities employed elsewhere.

## Short-term Financial Effects of Governor's Budget Create Shortfalls

The 29 new DEC staff the Governor proposes to oversee gas extraction will cost \$3 million for each of the next two fiscal years, while the revenue from the severance tax on drilling will produce only \$1 million, and only in 2011. Thus, taxpayers would subsidize the methane gas industry by \$5 million over 2 years. This constitutes a financial drain on the state, and reveals the gas drilling initiative as highly questionable in terms of its single touted benefit—revenues to shore up NYS's fiscal shortfalls

Both in the short- and long-term (see graph below), gas drilling will COST the state far more than it can recoup from this activity.

## Methane Gas — Plus or Minus for New York's Economy?

Compare the economic gain from gas drilling that New York State can expect over the next 20 years to the gain from some of the state's most important industries.

Estimated potential gain over 20 years

Gas extraction	\$22 billion <sup>1</sup>	Tourism	\$173 billion <sup>2</sup>
		Farm cash receipts	\$48 billion <sup>3</sup>
		Dairy products	\$39 billion <sup>4</sup>
		Grapes and wine	\$68 billion <sup>5</sup>
		Hunting & fishing	\$32 billion <sup>6</sup>
		Wildlife watching	\$32 billion <sup>6</sup>
Total	\$22 billion		\$392 billion

The estimated gain from methane gas does *not* take into account the tax burden from explosions, fires and accident cleanups, the contamination of public and private water by natural gas and injected / "produced" toxins, environmental degradation, civic infrastructure damage, and human / animal health costs historically incurred by gas drilling.

Other deficits not included here are upfront lease payments, or costs from damage to infrastructure or loss of farmland and potable water.

The value for methane gas was computed using a 50 trillion cubic foot estimate of recoverable gas in the Marcellus shale, multiplied by 25% for the fraction in New York State, at \$14 per 1,000 cubic feet (the high price in summer 2008) and 12.5% for the royalty many landowners get.<sup>1</sup>

## RESOURCES:

### **timesleader.com**

NORTHEASTERN PENNSYLVANIA'S HOMEPAGE

1

February 25, 2009 *Times Leader*, "Amid cheap gas, Pa. drillers carry on. State is not seeing the same reduction in Marcellus shale drilling as other areas."

By Rory Sweeney rsweeney@timesleader.com Staff Writer

[http://www.timesleader.com/news/hottopics/shale/Amid\\_cheap\\_gas\\_Pa\\_drillers\\_carry\\_on\\_02-25-2009.html](http://www.timesleader.com/news/hottopics/shale/Amid_cheap_gas_Pa_drillers_carry_on_02-25-2009.html)

### 2 "Tourism Impact in the Adirondacks"

Marcellus shale counties account for about 17% of the \$51 billion spent on tourism in New York in 2007.

Marcellus counties tourism = \$8.67 billion per year

Over 20 years = \$173 billion

<http://www.adirondackbasecamp.com/2008/09/tourism-impact-adirondacks/>



United States Department of Agriculture

**National Agricultural Statistics Service**

3

National Agricultural Statistics Services, New York State

NYS agriculture = \$3.65 billion annually

Over 20 years = \$73 billion from Marcellus Shale region

[http://www.nass.usda.gov/Statistics\\_by\\_State/New\\_York/Publications/County\\_Estimates/index.asp](http://www.nass.usda.gov/Statistics_by_State/New_York/Publications/County_Estimates/index.asp)

### 4 StuffAboutStates

Select dairy products for NYS

Cash receipts in 2004 = \$1.95 billion

Over 20 years = \$39 billion for the whole state

<http://stuffaboutstates.com/new.york/agriculture.htm>

### 5 New York's grape, grape juice and wine industry

Receipts = \$3.4 billion annually

Over 20 years = \$68 billion derived from the Marcellus Shale region

National Agricultural Statistics Services, New York State

NY Agricultural Statistics Service, 2007-2008 Annual Bulletin, Table 34

[http://www.nass.usda.gov/Statistics\\_by\\_State/New\\_York/Publications/County\\_Estimates/index.asp](http://www.nass.usda.gov/Statistics_by_State/New_York/Publications/County_Estimates/index.asp)

### **U.S. Census Bureau**

6

NY's hunting & fishing and wildlife income

Hunting / fishing 2006 = \$1.6 billion

Over 20 years = \$32 billion

Wildlife watching 2006 = \$1.6 billion

Over 20 years = \$32 billion

U.S. Fish & Wildlife Service, New York 2006 National Survey of Fishing, Hunting, & Wildlife-Associated Recreation

<http://www.census.gov/prod/www/abs/fishing.html>

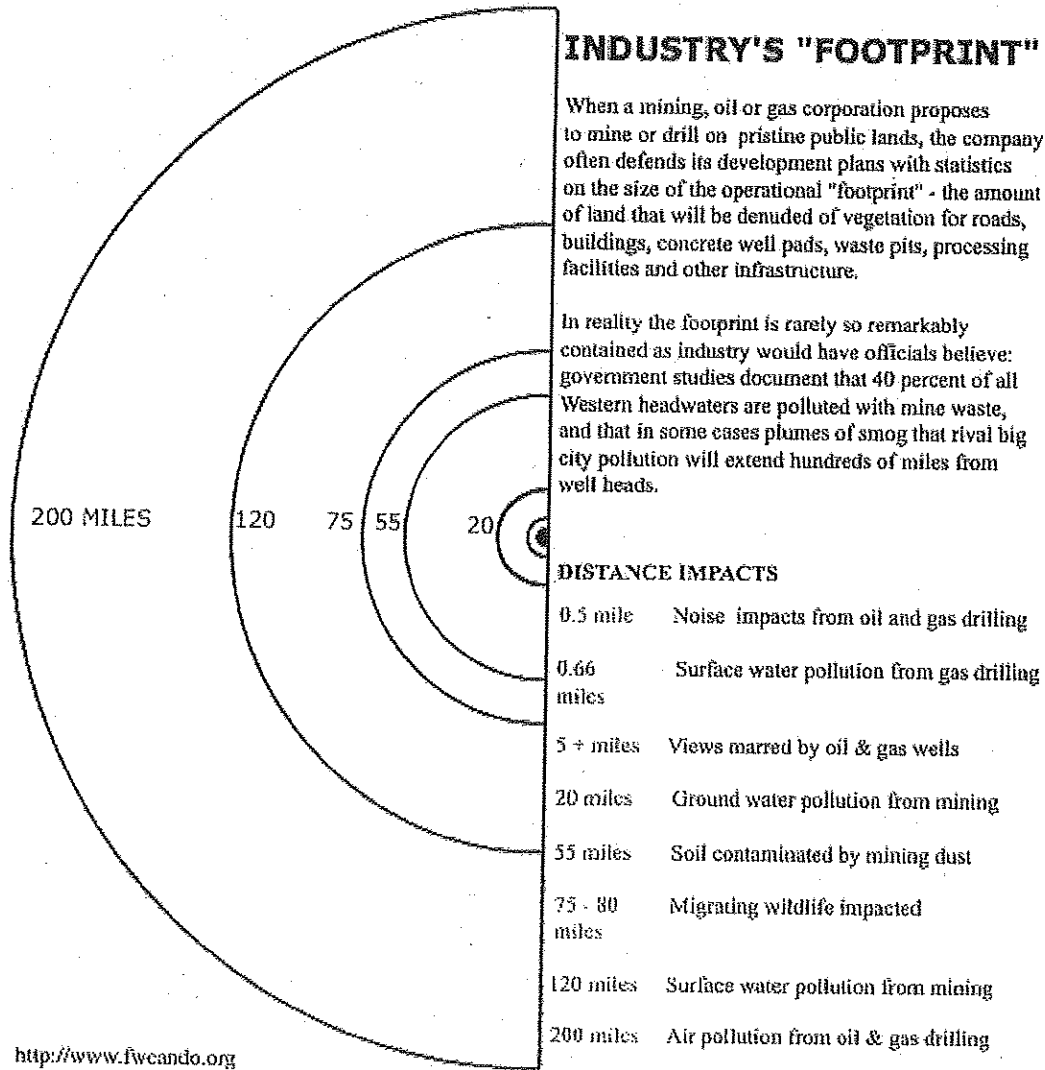
<http://www.shaleshock.org/what-are-potential-economic-gains-and-risks-of-gas-drilling/>

To access the original article and graph, go to above link and click on "What's at Risk"



Oct 21, 2008

# Oil & Gas Industry Footprint



CDOG

[un-naturalgas.org](http://un-naturalgas.org)

# The One Percent Obfuscation

by David J. Cyr

The voices advocating stone gas drilling often assure inattentive listeners that all the chemicals used in the fracking procedure amount to a very small quantity — only about “one percent” of the fluids used.

But 1% of what volume?

The Susquehanna River Basin Commission has stated: “The fracturing process uses an average of 2 to 9 million gallons of fresh water per well.”

One percent of 2 to 9 million gallons amounts to 20,000 to 90,000 gallons of toxic chemicals — *per well*.

**The 1% of added chemicals contaminate 100% of the water used.**

Some drilling advocates claim there's 14 years' worth of gas supply for the entire nation in the Marcellus Shale. To extract that much there would have to be tens of thousands of wells drilled in each of the states under which that deposit lies (New York, Pennsylvania, Ohio and West Virginia). The total combined drilling would likely result in hundreds of thousands of high-volume, high-pressure hydrofracking operations.

That 1 percent addition of chemical cocktail would mean 200 to 900 million gallons of highly toxic chemicals for every 10,000 wells drilled, *all* of which is added to the enormous volume of confiscated water.

If you add that 200 to 900 million gallons of highly toxic chemicals to the water taken for 10,000 wells, that clean drinking water confiscated by the drillers is transformed into approximately 20 to 90 billion (with a “B”) gallons of hazardous waste.

If 100,000 wells are drilled, they would produce 200 to 900 billion gallons of hazardous waste — enough to fill between 3,222 and 14,497 Exxon Valdez-class tankers. Anywhere from 30% to 70% of this stays underground! <http://www.riverreporter.com/issues/09-01-08/news-backflow.html>

A tiny portion of a really enormous volume is *not* an insignificant quantity — especially when it is water soluble, volatile, highly toxic — and can evaporate.

Number of active gas wells — 2007

Pennsylvania	53,586	New York had 6,213 wells (mostly old school — not Halliburtonized)
Ohio	34,307	
West Virginia	<u>45,422</u>	
	133,315	

[http://www.worldoil.com/magazine/magazine\\_detail.asp?ART\\_ID=3439](http://www.worldoil.com/magazine/magazine_detail.asp?ART_ID=3439)

It's not clear how many of those non-NY wells were old school and how many used the much deeper, horizontal drill method — hydrofracked with far more water, under far more pressure than the old style.

A safe guess is that many, if not most, of those wells in the other three states were done with the Halliburton process. If there are hundreds of thousands of available drill sites, the drillers will want them all — and the DEC, the Albany legislature and the governor have already made hundreds of thousands of drill sites available.

- The total Marcellus Shale deposit lies under approximately 54,000 square miles of land.
- There are 640 acres in a square mile.
- With 40-acre drill site spacing, there's a potential of up to 16 wells per square mile.
- $16 \times 54,000 = 864,000$  potential well sites.
- 200,000 wells actually drilled is a very conservative estimate [see above], about 1/3 of which would be in New York State.

# Shale Gas Extraction & Drinking Water Contamination

- **Many cases of water contamination from shale gas drilling operations, which use high-volume hydraulic fracturing (HVHF), exist:** Thousands of problems, including spills, leaks, and the seepage of contaminants into drinking water supplies, have been documented around the country in conjunction with shale gas extraction by HVHF.<sup>1,2,3,4</sup>
  - ▶ Notably, the EPA found fracking fluid in drinking wells in Pavillion, Wyoming<sup>5</sup>, and residents of Dimock, PA claim fracking fluid has contaminated their wells.<sup>6</sup>
  - ▶ Houses, water wells, and pipelines have exploded, and people have found methane levels in their water so high that they could light it with a match.<sup>7,8,9</sup>
- **No studies have demonstrated that gas extraction operations using HVHF do not cause water contamination:** The gas industry, many government officials, and many “news” reports still claim that HVHF does not cause water contamination despite (1) much evidence of the link between gas extraction operations using HVHF and drinking water contamination (see above), and (2) the fact that *no large-scale, science-based, non-industry funded study exists that analyzes the relationship between HVHF and contamination of water resources.*

Studies of HVHF contaminating drinking water are greatly hindered by the lack of public disclosure as to which chemicals are put down which individual gas wells, which makes tracing the chemicals difficult; and by gas industry exemptions from the federal Safe Drinking Water Act, which impede the EPA’s ability to investigate water contamination claims.

In 2010, both the EPA and the House Committee on Energy and Commerce under Senator Waxman initiated major studies on the health and environmental impacts of hydraulic fracturing.<sup>10</sup>
- **Hydrofracking is not an exact science:** when gas companies fracture the shale, they do not have complete control over where fractures will develop, so fracturing fluids and natural gas can move in unexpected directions,<sup>11</sup> ending up in aquifers and water wells.
- **Vast numbers of uncapped gas wells threaten aquifers and drinking wells:** 18,000 to 48,000 abandoned oil and gas wells that have not been capped exist in NY.<sup>12</sup> During hydrofracking and deep-well injection, the high pressure can force the toxic fluids up through any existing uncapped wells, contaminating aquifers and drinking wells.<sup>13</sup>

## What is the Risk of Groundwater Contamination?

*The estimated 1 to 2% accident rate would create 40 to 80 cases of groundwater contamination in Tompkins County, alone.*

When tens of thousands of wells are drilled in a region, even a tiny error rate can result in hundreds of problems. Dr. Ron Bishop has obtained data from health officials across New York State and from several other states where gas drilling has taken place. From that data he calculated a 1 to 2% chance of groundwater contamination and a 5 to 8% chance of groundwater contamination or surface impacts (such as sedimentation of surface water or chemical pollution of soil, streams, or lakes).<sup>14</sup> A 2007 Penn State study of 200 water wells near oil and gas wells found 8% contaminated.<sup>15</sup>

Contamination from just 1% of the 2,600<sup>16</sup> to 4,000<sup>17</sup> gas wells expected in Tompkins County would mean 26 to 40 separate cases of groundwater contamination, but it only takes one chemical spill to contaminate an aquifer and ruin the drinking water for an entire region. Once an aquifer is contaminated, it can rarely, if ever, be cleaned up. An error rate of this magnitude in the airline industry (1% of 8.8 million U.S. commercial domestic flights/year)<sup>18</sup> would mean an unacceptable 88,000 crashes in the U.S. each year (241 per day).

## Endnotes:

- <sup>1</sup> A listing of many news reports and studies of contaminated water is posted at:  
[http://www.tcgasmap.org/default.asp?metatags\\_Action=Find\('PID','8'\)#Water Contamination](http://www.tcgasmap.org/default.asp?metatags_Action=Find('PID','8')#Water Contamination)
- <sup>2</sup> McConnell, S. Sept. 22, 2009. "Third Natural Gas Chemical Spill Reported." *The Wayne Independent*.  
<http://www.wayneindependent.com/news/x1699593258/Third-natural-gas-chemical-spill-reported>
- <sup>3</sup> Lustgarten, A. November 13, 2008. "Buried Secrets: Is Natural Gas Drilling Endangering U.S. Water Supplies?" *ProPublica*. <http://www.propublica.org/feature/buried-secrets-is-natural-gas-drilling-endangering-us-water-supplies-1113>
- <sup>4</sup> Thyne, G. December 20, 2008. "Review of Phase II Hydrogeologic Study." (Report prepared for Garfield County, Colorado.) [http://s3.amazonaws.com/propublica/assets/methane/thyne\\_review.pdf](http://s3.amazonaws.com/propublica/assets/methane/thyne_review.pdf)
- <sup>5</sup> Lustgarten, A. August 25, 2009. "EPA: Chemicals Found in Wyoming Drinking Water Might Be From Fracking." *ProPublica*. <http://www.propublica.org/feature/epa-chemicals-found-in-wyo.-drinking-water-might-be-from-fracking-825>
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- <sup>10</sup> See [http://www.tcgasmap.org/default.asp?metatags\\_Action=Find\('PID','8'\)#Legislative Issues and](http://www.tcgasmap.org/default.asp?metatags_Action=Find('PID','8')#Legislative Issues and)  
<http://www.tcgasmap.org/media/Scoping Document for EPA Hydraulic Fracturing Study 4-1-10.pdf>
- <sup>11</sup> Quotes from industry research scientists on the uncertainty in hydraulic fracturing:  
<http://www.tcgasmap.org/media/Hydraulic Fracturing Predicting Difficulties Industry Source.pdf>
- <sup>12</sup> Interstate Oil and Gas Compact Commission. September 1994. "IOGCC/EPA Review of Oil and Gas Exploration and Production Waste Management Regulatory Programs: New York State Review."  
<http://www.strongerinc.org/documents/New York Initial Review 9-1994.pdf> (See p. 42)
- <sup>13</sup> <http://splashdownpa.blogspot.com/2009/10/letter-from-wilma-subra-to-new-york.html>  
(See "A Letter from Wilma Subra to New York State," and the section titled "Hydraulic Fracturing.")
- <sup>14</sup> Dr. Ron Bishop, private communication. Officials were asked about incidents of groundwater contamination and surface problems (chemical pollution of soil, sedimentation, and similar issues).
- <sup>15</sup> Clark, J., B. R. Swistock, and S. Clemens. 2007. Unpublished data collected from 200 private water wells in McKean County, noted in: <http://resources.cas.psu.edu/WaterResources/pdfs/gasdrilling.pdf>
- <sup>16</sup> The recent prediction of there being a 50% chance of 489 trillion cubic feet of gas being produced over 50 years from the entire Marcellus Shale [Engelder, T. 2009. Marcellus 2008: Report Card on the Breakout Year for Gas Production in the Appalachian Basin. *Fort Worth Basin Oil & Gas Magazine*] requires a well pad every square mile with 8 wells per pad over 70% of the Marcellus shale formation. This scenario results in 2,600 wells for Tompkins County, alone. [Tompkins County total land area = 305,250 acres; 70% of this is 213,675 acres. Assuming a well pad with 8 wells every square mile (640 acres) results in 2,600 wells.]
- <sup>17</sup> No hard figures exist for the number of wells that will be drilled. Administrators in Tompkins County expect 4,000 wells. See the draft SGEIS comments by Tompkins Co. Planning Dept. (<http://www.tcgasmap.org/media/Town of Ithaca Comments on Draft SGEIS.pdf>)
- <sup>18</sup> [http://www.bts.gov/press\\_releases/2009/bts058\\_09/html/bts058\\_09.html#table\\_07](http://www.bts.gov/press_releases/2009/bts058_09/html/bts058_09.html#table_07)  
(See Table 7: 6,630,500 flights in the first 9 months of 2009 translates to 8.8 million per year.)

# Shale Gas Extraction and Health

- **Much evidence indicates that shale gas extraction, which uses high-volume hydraulic fracturing (HVHF), harms the health of local residents:**
  - (1) Much information exists on the serious health effects of the chemicals used in gas drilling.<sup>1,2,3</sup>
  - (2) A 12/09 health survey in DISH, Texas found that more than half of the reported symptoms are consistent with the known symptoms from the toxins detected in an air pollution study.<sup>4</sup>
  - (3) Shale gas drilling creates ozone pollution, and a 3/09 study demonstrated that long-term exposure to low levels of ozone increases the risk of death from respiratory illness.<sup>5</sup>
  - (4) A comprehensive review by Witter in 2008 found great potential for health and psychological problems in Colorado residents living near gas development, but little data to analyze. Witter recommends thorough health studies of people living near intensive gas extraction.<sup>6,7</sup>
  - (5) Hundreds of stories exist of high numbers of people living near gas wells developing serious health problems, such as rare cancers, neurological disorders, and impairment of motor skills.<sup>8,9,10</sup> The anecdotes are accumulating to a total that requires much denial to ignore.
- **Many fracking chemicals are endocrine disruptors:** Of the 201 specific fracking chemicals identified by the Endocrine Disruption Exchange, 20% are generally accepted endocrine disruptors—chemicals that affect our hormonal systems, interfering with sexual development, immune function, and reproduction.<sup>11</sup> Effects occur at extremely low exposure levels of parts per million or billion in air, water, or soil.
- **Health effects of many chemicals to be used in HVHF in NY are not known:** In addition to not knowing the effects of many known chemicals (Draft SGEIS, pp. 5-61 & 5-64), there are 45 products to be used for which DEC has incomplete ingredients (Draft SGEIS, Table 5.3) and 40 compounds whose ingredients are unknown because they are mixtures (Draft SGEIS p. 5-34).
- **26 chemicals<sup>12</sup> to be used in HVHF in NY are classified as hazardous waste, but are not handled as hazardous:** 26 chemicals listed in the SGEIS, pp. 5-45 through 5-52, Table 5.6, are listed as hazardous under sections of one or more of the six major federal environmental laws.<sup>13</sup> Because of gas industry exemptions, however, they do not need to be treated as hazardous once they come out of a well.
- **A large-scale scientific analysis determining the rates of serious health problems associated with shale gas drilling and HVHF should be done before it is allowed to proceed anywhere:** A study of the rates of serious health problems, such as cancer, respiratory illness, nervous system disorders, birth defects, and developmental disorders, of people living near intensive gas drilling activity is urgently needed. The results should be used to help determine if HVHF is safe enough to be used at all.

"If any one of these....chemicals were emitted or discharged from an industrial facility, reporting to the US EPA would be mandatory, and in most cases permits would require strict pollution limits and companies would be subject to specific cleanup standards. But because these same chemicals are used in natural gas drilling operations they are completely exempt from environmental reporting requirements, and their use is not controlled in any meaningful way."<sup>14</sup>

*HVHF has been used intensively in some areas for 10+ years. We need a large-scale, science-based study to determine the relationship between HVHF and serious health issues. It is irresponsible to allow HVHF in NY without knowing the effect it will have on the health of residents.*

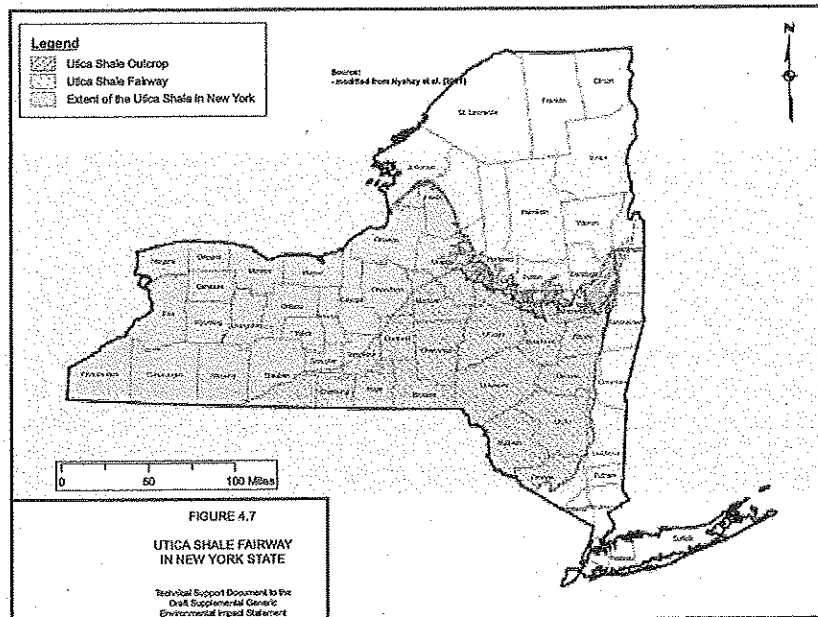
► **Existing evidence points strongly to HVHF causing serious health problems**

## ENDNOTES:

- <sup>1</sup> The Endocrine Exchange (TEDX) has done a lot of ground-breaking work in identifying chemicals in fracking fluid. An Excel spreadsheet with data on the chemicals they have identified is at <http://www.endocrinedisruption.com/chemicals.fracturing.php>
- <sup>2</sup> Draft Supplemental Generic Environmental Impact Statement on SGEIS, pp. 5-61 to 5-65.
- <sup>3</sup> Whitty, Julia. Sept. 2, 2009. "How Diesel Exhaust Grows Cancer." *Mother Jones*. <http://motherjones.com/blue-marble/2009/09/how-diesel-exhaust-grows-cancer>
- <sup>4</sup> Earthworks Press Release. Dec. 17, 2009. "Community Health Survey Shows Shale Gas Drilling Threatens Health." [http://earthworksaction.org/PR\\_DISH\\_HealthSurveyRelease.cfm](http://earthworksaction.org/PR_DISH_HealthSurveyRelease.cfm)
- <sup>5</sup> Maugh, T. H. March 12, 2009. "Low-level Ozone Exposure Found To Be Lethal Over Time." *Los Angeles Times*. <http://articles.latimes.com/2009/mar/12/science/sci-ozone12>
- <sup>6</sup> Witter, Roxana, et al. Sept. 15, 2008. "Potential Exposure-Related Human Health Effects of Oil and Gas Development: A White Paper." [http://www.catskillcitizens.org/Gas\\_Drilling\\_health\\_2.pdf](http://www.catskillcitizens.org/Gas_Drilling_health_2.pdf)
- <sup>7</sup> Witter, Roxana, et al. August 1, 2008. "Potential Exposure-Related Human Health Effects of Oil and Gas Development: A Literature Review (2003-2008)." <http://www.ccag.org.au/images/stories/pdfs/literature%20review%20witter%20et%20al%202008.pdf>
- <sup>8</sup> Clarren, Rebecca. November/December 2006. "Voices from the Gas Fields." *Orion Magazine*. <http://www.orionmagazine.org/index.php/articles/article/186/>
- <sup>9</sup> Earthworks. "Health Concerns in Colorado's Oil and Gas Fields." <http://www.earthworksaction.org/Colohealth.cfm>
- <sup>10</sup> Amos, Laura. "Hydraulic Fracturing: Family's water well was contaminated after hydraulic fracturing near their home." *Earthworks* website. <http://www.earthworksaction.org/cvLauraAmos.cfm>
- <sup>11</sup> The Endocrine Disruption Exchange: <http://www.endocrinedisruption.com/chemicals.fracturing.php> and <http://www.endocrinedisruption.com/endocrine.introduction.overview.php>  
Also: [http://www.tcgasmap.org/media/Dr. Adam Law Draft SGEIS Comments.pdf](http://www.tcgasmap.org/media/Dr._Adam_Law_Draft_SGEIS_Comments.pdf)
- <sup>12</sup> **The 26 chemicals, and the number of laws listing them [ ]:**
- |   |                       |   |
|---|-----------------------|---|
| 2-Bromo-2-nitro-1,3-propanediol [1-TRI]           | Ethyl Benzene [5]     | Naphthalene [6]   |
| 2,2-Dibromo-3-nitrilopropionamide (DBNPA) [1-TRI] | Ethylene Oxide [5]    | Potassium Hydroxide [2]   |
| Acetic Acid [3]                                   | Ferrous Sulfate [2]   | Sodium Hydroxide [3]  |
| Acrylamide [5]                                    | Formamide [1]         | Sodium Sulfate [1]  |
| Ammonium Bisulfate [2]                            | Formic Acid [5]       | Tetrahydro-3,5-dimethyl-2H-1,3,5-thiadiazine-2-thione (Dazomet) [1] |
| Butan-1-OL [4]                                    | Fumaric Acid [3]      | Thiourea [4]  |
| Diethylene Glycol [1]                             | Glutaraldehyde [1]    | Xylene [6]  |
| Dodecylbenzene Sulfonic Acid [2]                  | Hydrochloric Acid [5] |   |
|   | Isopropanol [2]       |   |
|   | Methanol [5]          |   |
|   | Monoethanolamine [1]  |   |
- <sup>13</sup> The Clean Air Act, Clean Water Act, Superfund Law (CERCLA), Emergency Planning and Community Right-to-Know Act (EPCRA), Resource Conservation and Recovery Act (RCRA), and the Superfund Amendments and Reauthorization Act of 1986 (SARA).
- <sup>14</sup> Environmental Working Group. June 10, 2008. "Colorado's Chemical Injection." <http://www.ewg.org/book/export/html/26648>

Additive Type	Description	Examples	Health Effects of Chemicals
Proppant	"Props" open fractures and allows gas /fluids to flow more freely to the well bore	Sand (Sintered bauxite; zirconium oxide; ceramic beads)	Prolonged exposure to sintered bauxite dust can cause respiratory tract infection and irritation to skin and eyes. Zirconium Oxide can be slightly hazardous in case of eye contact, skin contact, inhalation or indigestion. Chronically, it can be toxic to the upper respiratory tract, and can produce organ damage.
Acid	Cleans up perforation intervals of cement and drilling mud prior to fracturing fluid injection, and provides accessible path to formation	Hydrochloric acid (HCl, 3% to 28%)	A clear, colorless, fuming, poisonous, highly acidic aqueous solution of hydrogen chloride, HCl, used as a chemical intermediate and in petroleum production, ore reduction, food processing, pickling, and metal cleaning. The EPA regulates HCl as a toxic substance
Breaker	Reduces the viscosity of the fluid in order to release proppant into fractures and enhance the recovery of the fracturing fluid	Peroxydisulfates	Peroxydisulfates can be mixed with sodium, potassium, or ammonia. Depending upon what is used there are varying degrees of irritation to skin and eyes. Mostly strong irritants based upon prolonged exposure. Prolonged exposure to ammonium persulfates may cause skin burns and ulcerations.
Bactericide/ Biocide	Kills organisms that could contaminate methane gas and kills bacteria to promote proppant delivery	Gluteraldehyde; 2-Bromo-2-nitro-1,2-propanediol	Gluteraldehyde is hazardous in case of skin contact, eye contact, ingestion, and inhalation. Severe over-exposure can result in death. 2-Propanediol decomposes on heating or on burning producing toxic and corrosive fumes including hydrogen bromide and nitrogen oxides. Reacts with some metals, amines and alkaline compounds.
Clay Stabilizer	Prevents swelling and migration of formation clays which could block pore spaces thereby reducing permeability	Salts (eg. Tetramethyl ammonium chloride) Potassium chloride (KCl)	Potassium Chloride can cause eye and skin irritation. Ingestion will cause gastrointestinal irritation and inhalation will cause respiratory tract infection. Lab experiments have resulted in mutagenic effects.
Corrosion Inhibitor	Reduces rust formation on steel tubing, well casings, tools, and tanks.	Methanol	Methanol is toxic: drinking 10 ml will cause blindness, and as little as 100 ml will cause death. It is used as an antifreeze, solvent, and fuel.
Crosslinker	Increases fracturing fluid viscosity to carry more proppant into the fractures.	Potassium hydroxide	Pure potassium hydroxide forms white, deliquescent crystals. It dissolves readily in water, giving off heat and forms a strongly alkaline, caustic solution. It closely resembles sodium hydroxide and has similar uses.
Friction Reducer	Allows fracture fluids to be injected at optimum rates and pressures by minimizing friction.	Sodium acrylate-acrylamide copolymer; polyacrylamide (PAM)	Environment Canada lists sodium acrylate as a possible carcinogen, expected to be toxic and bioaccumulative and has flagged this as a chemical of concern for further testing. The building block of PAM acrylamide is a known carcinogen, mutagen, and a bioaccumulative toxic.
Gelling Agent	Increases fracturing fluid viscosity, allowing the fluid to carry more proppant into the fractures	Guar gum	Guar gum is generally not hazardous during normal handling
Iron control	Prevents the precipitation of metal oxides which could plug off the formation	Citric acid; thioglycolic acid	Thioglycolic Acid is extremely hazardous in case of eye contact. It is very hazardous in case of skin contact, ingestion, and inhalation. Severe over-exposure can result in death.
Scale Inhibitor	Prevents the precipitation of carbonates and sulfates	Ammonium chloride; ethylene glycol; polyacrylate	Ammonium chloride has severe corrosive effect on brass and bronze, and is hazardous in case of eye contact. It is slightly hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation. Ethylene Glycol is antifreeze
Surfactant	Reduces fracturing fluid surface tension thereby aiding fluid recovery	Methanol; isopropanol	Isopropanol is poisonous if taken internally, and is a major component of rubbing alcohols. The propylene is a byproduct of petroleum refining

Figure 3



*To protect human health and the environment, the DEC should withdraw the dSGEIS and the New York State should adopt a moratorium for time to gain the full scientific and policy understanding of hydro-fracking risks and consequences.*

## REASONS TO WAIT

Thoughtful consideration and action on these critical issues can avoid the largest potential environmental and public health disaster in New York State history.

### Science should guide policy, not quantify contamination

Due to innumerable drinking water problems associated with hydro-fracking, on October 29, 2009 Congress approved United States Environmental Protection Agency (EPA) to study drinking water effects from hydro-fracking. New York State should consider and incorporate this scientific knowledge before permitting hydro-fracking operations in the state.

### The enforcement farce

In the midst of the bleakest budget crisis in recent memory, New York State lacks the funding and the trained professionals to ensure enforcement of any hydro-fracking operation in the state. The dSGEIS directs

the NYS Department of Health—which has no regulatory power over hydro-fracking—to actively monitor hydro-fracking chemicals and radioactive waste concerns, assure drinking water protection, and assist local county health departments on water well investigations and complaints.

Local governments are only given the ability to regulate local roads and assess property taxes on gas wells. However, local health departments are required to facilitate and conduct complaints of water quality violations. Additionally, energy companies are expected to consult with local governments on their local planning documents, while giving these local governments no recourse if those plans are violated.

The only responsible solution is to enact a moratorium on hydro-fracking to ensure New York's clean water and energy future. New York needs leadership of conscience to allow time for regulators, landowners, taxpayers, policymakers and citizens to understand the true consequences to our flowing streams, infamous lakes, protected watersheds, pure aquifers and our pocketbooks. We need leadership to ensure the proper treatment and disposal of the toxic, radioactive, and abundant waste produced as a by-product of this industry-preferred extraction method for the natural gas deposits contained in the Marcellus and Utica shale.



## Executive Summary

**N**amed for the exposed outcrop in Marcellus, NY, the Marcellus Shale formation exists below much of New York State from the Catskills to the Allegheny forest. Natural gas exists in small pockets of the fragile shale. Recently, the oil and gas industry has begun using **High Volume Hydraulic Fracturing**, or **Hydro-Fracking** to drill thousands of feet below the surface to recover natural gas. Hydro-fracking uses millions of gallons of water per well and generates millions of gallons of toxic, corrosive, and radioactive waste.

Hydro-fracking New York's shale formations, including the Marcellus and Utica formation pose inherent risks to human and environmental health while increasing burdens on local governments, health departments, and taxpayers. Especially problematic is the lack of federal protection for drinking water, air quality, water treatment infrastructure, and landowner liability.

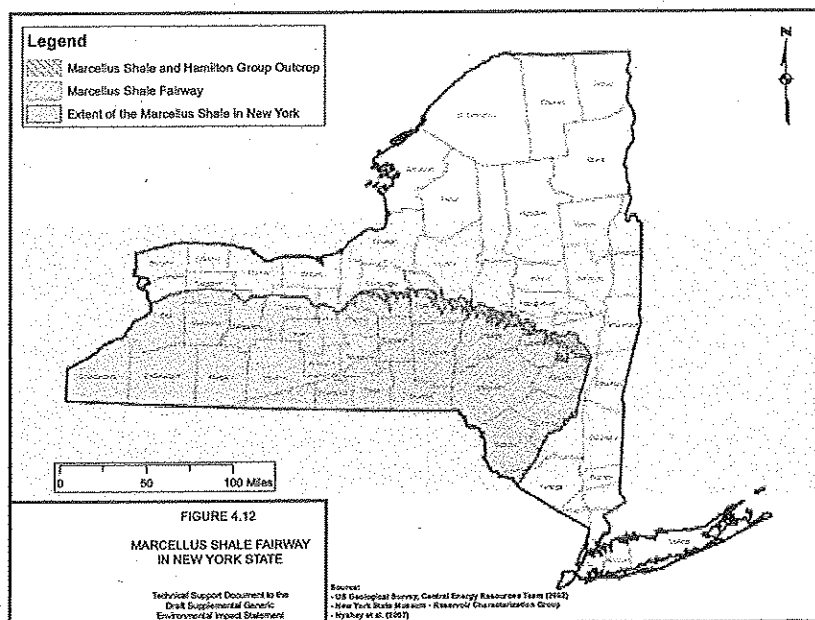
*In 2005, influenced by gas drilling giants Halliburton and Chesapeake Energy, the 110th Congress and President Bush exempted hydro-fracking operations from critical Safe Drinking Water Act and Clean Water Act protections and public comment opportunities provided by the National Environmental Policy Act.*

From Texas to Pennsylvania, the oil and gas

industry has been busy exploiting its exemptions from every major federal environmental statute. The result is the destruction of drinking water supplies, overtaxed water treatment infrastructure, and killing tens of thousands of fish and other aquatic life. New York does not have to repeat these same mistakes.

In September 30, 2009 The New York State Department of Environmental Conservation (DEC) released the draft *Supplemental Generic Environmental Impact Statement on the Oil, Gas and Solution Mining Regulatory Program Well Permit Issuance for Horizontal Drilling and High-Volume Hydraulic Fracturing to Develop the Marcellus Shale and Other Low-Permeability Gas Reservoirs* herein referred to as the "dSGEIS". This 800+ page document is filled with speculation, now outdated information, and seeks to establish a regulatory program to govern hydro-fracking without adequate staff, cumulative impact assessments, and by placing unfunded mandates on agencies and local governments with no regulatory power.

The dSGEIS fails to provide a clear plan for treating millions, if not billions, of gallons of radioactive and corrosive fracking wastewater; ensure New Yorker's are protected from increased exposure to the known carcinogen, Radon; and it fails to protect New York's amazing surface and groundwater resources from contamination by spills, accidents, and storm events.



## Conclusion

New York State should learn from her neighbors. Pennsylvania was caught off-guard by the hydro-fracking industry's wastewater treatment needs. The PA Department of Environmental Protection ordered wastewater treatment facilities to limit the amount of hydro-fracking wastewater accepted to 1% of the plants volume, primarily due to elevated Total Dissolved Solids (TDS) levels. Five times saltier than seawater, hydro-fracking wastewater is impairing the health of Pennsylvania's waters as well as corroding the intake pipes for other electricity-producing plants.<sup>27</sup>

In closing, enacting a moratorium on hydro-fracking is necessary and reasonable to provide time for our State Leaders to ensure New York's clean water and energy future. New York needs leadership of conscience to allow time for regulators, landowners, taxpayers, policy makers and citizens to understand the true consequences to our flowing streams, infamous lakes, protected watersheds, pure aquifers and our pocketbooks. We need leadership to ensure the proper treatment and disposal of the toxic, radioactive, and abundant waste produced as a byproduct of this industry-preferred extraction method for the natural gas deposits contained in the Marcellus and Utica shale.

## Endnotes

1. [http://www.state.ny.us/governor/press/press\\_0723084.html](http://www.state.ny.us/governor/press/press_0723084.html)
2. dSGEIS- page 5-20
3. dSGEIS- p. 5-28
4. dSGEIS- pp. 5-124-125 Table 5.15- Primary Pre-Production Well Pad Operations
5. dSGEIS. p.4-36
6. Ibid.
7. dSGEIS p. 5-110 Table 5-10- Concentrations of NORM constituents based on limited samples from PA and WV
8. dSGEIS; Appendix 13 - NYS Marcellus Radiological Data from Production Brine
9. <http://www.epa.gov/rpdweb00/radionuclides/radium.html#affecthealth>
10. Ibid.
11. Ibid.
12. dSGEIS- pp. 5-29-30
13. dSGEIS- p. 5-28 Reserve Pits on Multi-Well Pads
14. dSGEIS- p. 5-119 Reserve Pit Liner from Mud Drilling
15. dSGEIS. Table 5-2 pp. 5-30-31
16. dSGEIS- p. 5-118 Cuttings from Mud Drilling
17. dSGEIS- page 5-28 Drilling Mud
18. Tables 5-3 and 5-4. pp. 5-35-40
19. dSGEIS. p. 5-34
20. <http://www.dec.ny.gov/chemical/42383.html>
21. dSGEIS- p. 5-106 Temporal Trends in Flowback Water Composition
22. dSGEIS- p. 5-128 Brine Storage
23. dSGEIS- pp.5-126-127 Production Rate
24. Ibid.
25. dSGEIS p. 5-129 Brine Disposal
26. dSGEIS; Appendix 12 - Beneficial Use Determination (BUD) Notification Regarding Roadspreading
27. <http://www.post-gazette.com/pg/08322/928571-113.stm>; <http://www.propublica.org/feature/wastewater-from-gas-drilling-boom-may-threaten-monongahela-river>; <http://files.dep.state.pa.us/AboutDEP/AboutDEPPortalFiles/RemarksAndTestimonies/TestimonySAC022509.pdf>
28. dSGEIS. p. 5-113
29. dSGEIS. pp. 5-113-114
30. dSGEIS. p. 6-108
31. dSGEIS. pp. 7-95-96
32. dSGEIS p. 1-3 Generic Environmental Impact Statements
33. dSGEIS p. 1-2 Regulatory Jurisdiction
34. dSGEIS. p. 8-5
35. dSGEIS. p. 2-17
36. dSGEIS. p. 1-2
37. dSGEIS. p. 8-5
38. dSGEIS. p. 8-4

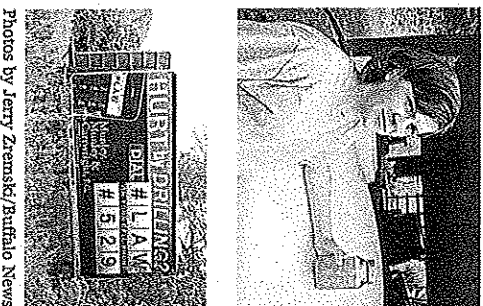
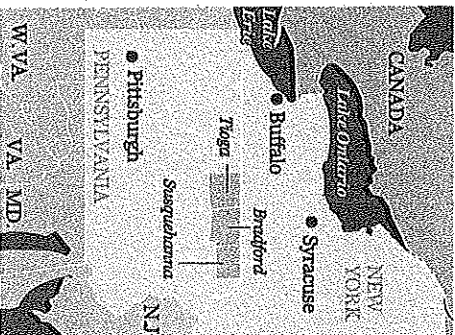
# The environmental toll of fracking

*Among the complaints from northern Pennsylvania*

**Wellsboro:** Twenty-eight head of cattle remain quarantined after apparently drinking wastewater from a natural gas drilling operation on a farm in Tioga County.

**Monroeton and Terry Township:** Several families have complained of natural gas in their well water in wake of Marcellus Shale drilling in Bradford County.

**Dinmock:** Thirteen families are having water delivered because natural gas leaked into their well water in Susquehanna County.



Photos by Jerry Zrenski/Buttalo News

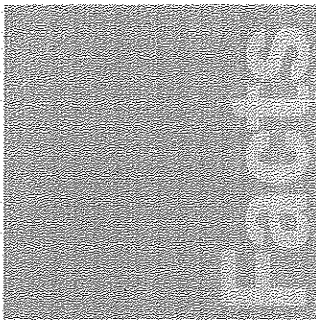
Jonna Phillips says her well water turned a murky brown after a gas well was drilled not far from her family's home in Terry Township, Pa.

Billboard solicits business from victims of possible environmental damage from fracking.

*Statewide, 1,056 violations in 963 days*

Problem	Number of incidents	Percent of total
Improper erosion and sediment plans	299	28.3%
Faulty pollution-prevention practices	212	20.1%
Improper wastewater compounding	162	15.3%
Discharge of industrial waste	155	14.7%
Violations of state Clean Stream Law	91	8.6%
Improper well casing construction	50	4.7%
Permit violations	46	4.4%
Other	41	3.9%

*Report shows major environmental violations associated with Marcellus Shale drilling between Jan. 1, 2008, and Aug. 20, 2010.  
Source: Pennsylvania Land Trust Association analysis of state Department of Environmental Protection data.*



Land



To read the full NRDC report on oil and gas drilling, including the stories of people affected by drilling in their communities, visit [www.nrdc.org/policy](http://www.nrdc.org/policy).

## Drilling Down: Protecting Western Communities from the Health and Environmental Effects of Oil and Gas Production

For more information, please contact  
**Amy Mall**  
(720) 565-0188

The oil and gas industry in the United States has expanded rapidly during the last decade, particularly in the Rocky Mountain region. But oil and gas production releases pollution that can have serious impacts on people's health and the surrounding air, water, and land. Although these operations are frequently located near homes, schools, and other community resources, the oil and gas industry enjoys numerous exemptions from provisions of federal laws intended to protect human health and the environment. NRDC's latest report provides a comprehensive assessment of these loopholes, which allow oil and gas companies to continue polluting despite the risks.

Technological solutions that reduce environmental contamination and protect the health of communities across the nation are readily available—and often economical. At a minimum, oil and gas exploration and production should be subject to the same environmental measures with which virtually all other industries must already comply. The time for Congress to step into the regulatory void is long overdue.



[www.nrdc.org/policy](http://www.nrdc.org/policy)

October 2007

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## Drilling Down: Protecting Western Communities from the Health and Environmental Effects of Oil and Gas Production

### The Oil and Gas Industry Is Booming

Along with America's rising national demand for energy, domestic oil and natural gas production has expanded enormously in recent years—and much of this growth is occurring

in the Rocky Mountain region. According to the U.S. Energy Information Administration, between 1990 and 2005 the number of producing gas wells nationwide (spread across 32 states) increased from roughly 270,000 to 425,000. The American Petroleum Institute (API) reported that 2006 was a record year for gas drilling, with more than 29,000 new wells drilled. New Mexico, Colorado, Wyoming and Montana are among the states with the greatest growth.

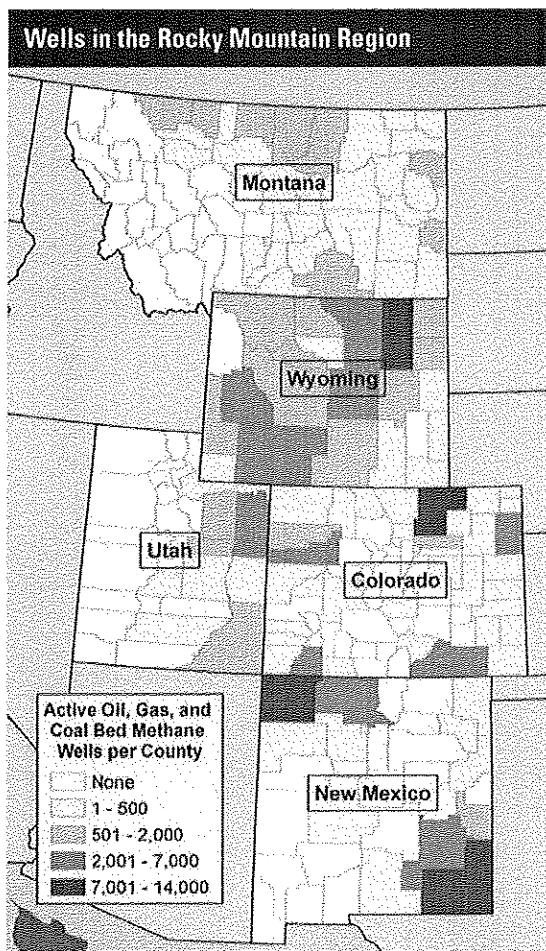
The number of producing oil wells also ranks in the hundreds of thousands. More oil wells were completed in 2006—more than 15,000—than in any year since the 1980s. Expectations that this buildup will continue unabated were confirmed by the API's recent report that oil and gas drilling hit a 21-year high in the first half of 2007.<sup>1</sup>

and birth defects. A recent study reported a higher prevalence of rheumatic diseases, lupus, neurological symptoms, respiratory symptoms and cardiovascular problems in a New Mexico community built on top of a former oilfield with some nearby active wells when compared to a community with no known similar exposures.<sup>2</sup> Other studies have found increased cancer risks associated with living near oil or gas fields.

Among the many symptoms reported by the people whose stories are told in our full report, nausea, numbness, swelling, skin irritation, breathing difficulty, and headaches were frequently cited. A direct cause and effect relationship between possible toxic exposure and the health problems of these individuals has not been determined, but that may be due to the known difficulty of recognizing illness stemming from chemical exposure. Chemical poisoning is notorious for resulting in nonspecific signs or symptoms that resemble other common diseases and immediate symptoms might be nonexistent or mild despite the risk of long-term negative health effects.

Despite some studies on the hazards of oil and gas, there has been no comprehensive scientific monitoring or exposure assessment for an industrial activity present in nearly two-thirds of U.S. states—with more than half a million locations that could be emitting toxic materials to workers and nearby residents. The need for further research is evident.

Some individuals choose not to share their stories, especially in communities with local economies dependent on the oil and gas industry. Others move away, sometimes with their homes purchased by energy companies and with signed agreements that prohibit them from telling their stories. And still others have given up on trying to call attention to this matter. One man recently stated at a public meeting, "if few people are complaining about drilling these days, it's because they've given up after being ignored for so long."<sup>3</sup>



### People Who Live Near Oil and Gas Operations Report Serious Health Problems

Many people who live near oil and gas operations experience symptoms resembling those that may be caused by the toxic substances found in oil and gas or the chemical additives used to produce them. The negative health effects associated with these substances range from eye and skin irritation to respiratory illness such as emphysema, thyroid disorders, tumors,

For stories of the people affected by oil and gas drilling in the West, see the NRDC full report *Drilling Down: Protecting Western Communities from the Health and Environmental Effects of Oil and Gas Drilling*.

*"The problem of widespread unidentified and unquantified toxic exposure to settled and mobile populations in the drilling fields of the Western Slope is obvious. The fact that no level of government nor any industry group has undertaken these critical health studies is inexcusable. When the bells are tolled for those injured, who will be willing to take the blame for these failures in preventive medicine?"*

Daniel Thau Teitelbaum, MD, medical toxicologist and occupational physician, Adjunct Professor of Environmental Sciences, Colorado School of Mines and Associate Clinical Professor of Preventive Medicine and Biometrics, University of Colorado Health Sciences Center at Denver.

### Legal Loopholes Put People and the Environment at Risk

The network of interrelated exemptions from environmental regulation given to oil and gas companies is a regulatory void unique to the industry. And while some state laws regulate the hazards of oil and gas operations, these laws vary widely. The health of Americans should not be harmed—or even put at risk—by toxic contamination that can be readily and economically controlled.

Decades of deal-making by the industry, Congress, and regulatory agencies have resulted in exemptions for the oil and gas industry from protections in the Clean Air Act, the Clean Water Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also known as the Superfund law), the Resource Conservation and Recovery Act, and the Safe Drinking Water Act. In addition, the oil and gas industry is not covered by public right-to-know provisions under the Emergency Planning and Community Right-to-Know Act, meaning that companies can withhold information needed to make informed decisions about protecting the environment and human health.

### Toxic Chemicals Released During Oil and Gas Operations

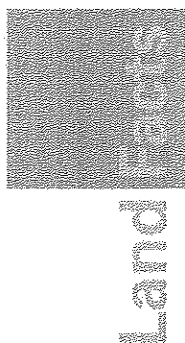
Pollutant	Known Negative Health Effects
Arsenic	Chronic arsenic exposure can cause damage to blood vessels, a sensation of "pins and needles" in hands and feet, darkening and thickening of the skin, and skin redness. It is a known human carcinogen, and can cause cancer of the skin, lungs, bladder, liver, kidney, and prostate.
Hydrogen Sulfide	Hydrogen sulfide has been linked to irritation of the eyes, nose, and throat, difficulty in breathing, headaches, dizziness, nausea, and vomiting. Low-level exposure might also lead to poor attention span, poor memory, and impaired motor function. Short-term exposure at high concentrations can lead to loss of consciousness and death.
Mercury	Mercury can permanently damage the brain, kidneys, and developing fetus and may result in tremors, changes in vision or hearing, and memory problems. Even in low doses, mercury may affect an infant's development, delaying walking and talking, shortening attention span and causing learning disabilities.
Polycyclic Aromatic Hydrocarbons	Several of the polycyclic aromatic hydrocarbons (PAHs) that can be found in crude oil have caused tumors in laboratory animals and are considered possible or probable human carcinogens. Studies of people have found that individuals exposed for long periods to mixtures that contain PAHs can also develop cancer. In addition, animal tests have found reproductive problems and birth defects.
<b>Volatile Organic Compounds (VOCs)</b>	
Acetone	Acetone can cause nose, throat, lung, and eye irritation, headaches, light-headedness, and confusion. In animals it has been linked to kidney, liver, and nerve damage, and increased birth defects.
Benzene	Benzene is a known human carcinogen and causes leukemia.
Ethylbenzene	Ethylbenzene can cause dizziness, throat and eye irritation, respiratory problems, fatigue and headaches. It has been linked to tumors and birth defects in animals, as well as to damage in the nervous system, liver, and kidneys.
Toluene	Toluene can cause fatigue, confusion, weakness, memory loss, nausea, hearing loss, central nervous system damage, and may cause kidney damage. It is also known to cause birth defects and reproductive harm.*
Xylene	Xylene can cause headaches, dizziness, confusion, balance changes, irritation of the skin, eyes, nose, and throat, breathing difficulty, memory difficulties, stomach discomfort, and possibly changes in the liver and kidneys.
<b>Radioactive Substances</b>	
Radium	Radium is a known human carcinogen, causing bone, liver, and breast cancer.
Radon	Radon can cause an increased incidence of lung diseases such as emphysema, as well as lung cancer.

\* State of California Environmental Protection Agency, "Chemicals known to the state to cause cancer or reproductive toxicity," (1 June 2007), available at: [http://www.oetha.ca.gov/prop65/prop65\\_list/Newlist.html](http://www.oetha.ca.gov/prop65/prop65_list/Newlist.html).

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## Drilling Down: Protecting Western Communities from the Health and Environmental Effects of Oil and Gas Production

### Congress Must End Special Favors For Oil and Gas Industry

Despite available methods for controlling hazardous pollution, such as air emission controls and non-toxic or less toxic chemical alternatives, the industry as a whole has failed to take reasonable steps needed to protect families, communities, and the environment. While NRDC strongly supports the voluntary adoption of such technologies by industry, it is imperative that the federal government, in coordination with state and local governments, close the loopholes in federal environmental laws that allow oil and gas exploration and production to pollute our environment and jeopardize the health of communities.

### Recommendations for Protecting Communities from the Risks Associated with Oil and Gas Drilling

#### Close Legal Loopholes

##### ■ Ensure the Public's Right-to-Know

1. Require oil and gas exploration and production companies to report to the Toxic Release Inventory to provide information to the public regarding chemicals that may pose a risk to the health of local communities.

##### ■ Protect the Air

1. Require aggregation of the emissions of oil and gas exploration and production activities under the National Emission Standards for Hazardous Air Pollutants;
2. Include oil and gas wells and their associated equipment on the list of small hazardous air pollutant sources wherever they are located;
3. Add hydrogen sulfide to the list of hazardous air pollutants.

##### ■ Protect Underground Sources of Drinking Water

1. Subject all hydraulic fracturing by the oil and gas industry to the Underground Injection Control program of the Safe Drinking Water Act;

2. Increase daily fines for violations by the oil and gas industry to equal those for other industries;
3. Require that the underground injection of materials associated with the oil and gas industry that meet RCRA's definition of hazardous waste meet the standards of Class I injection.

##### ■ Protect American Waters

1. Delete the term "navigable" from the Clean Water Act;
2. Require stormwater permits for all oil and gas industry activities;
3. Apply the Clean Water Act definition of "pollutant" to all materials used in oil and gas operations.

##### ■ Protect the Land

1. Include all toxic wastes associated with oil and gas exploration and production under RCRA's cradle to grave hazardous waste provisions;
2. Include oil and gas under the Superfund law—CERCLA.

### Evaluate the Health Risks Associated with Oil and Gas Exploration and Production

##### ■ Ensure extensive independent environmental monitoring of air, water, and soil that could be affected by oil and gas exploration and production sites.

##### ■ Assess the toxic exposures of families living near oil and gas exploration and production sites.

##### ■ Identify the toxic effects of the typical chemical mixtures found at oil and gas sites.

##### ■ Utilize the best available methods to monitor and track health outcomes in communities and in workers exposed to oil and gas exploration and production activities in comparison with similar but unexposed groups.

##### ■ Conduct health impact assessments for oil and gas activities on public land.

1 American Petroleum Institute, "U.S. drilling & completion half-year estimates at 21-year high" (1 August 2007), <http://www.api.org/Newsroom/drilling-21year-high.cfm>.

2 Dahlgren, J. et al, "Cluster of systemic lupus erythematosus (SLE) associated with oil field waste site: a cross sectional study," *Environmental Health* 6, No. 8 (22 February 2007), <http://www.ehjournal.net/content/6/1/8>.

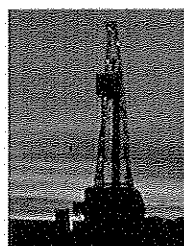
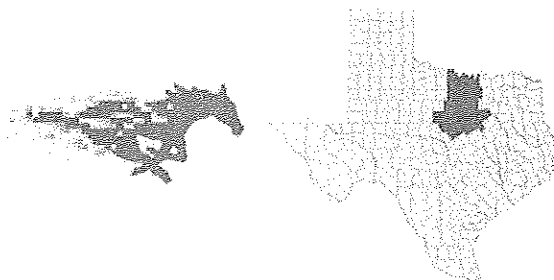
3 Webb, Dennis, "Houpt: Gasfield residents will be heard," *The Aspen Times* (7 October 2007).

# **Emissions from Natural Gas Production in the Barnett Shale Area and Opportunities for Cost-Effective Improvements**

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## 1.0 EXECUTIVE SUMMARY

Natural gas production in the Barnett Shale region of Texas has increased rapidly since 1999, and as of June 2008, over 7700 oil and gas wells had been installed and another 4700 wells were pending. Gas production in 2007 was approximately 923 Bcf from wells in 21 counties. Natural gas is a critical feedstock to many chemical production processes, and it has many environmental benefits over coal as a fuel for electricity generation, including lower emissions of sulfur, metal compounds, and carbon dioxide. Nevertheless, oil and gas production from the Barnett Shale area can impact local air quality and release greenhouse gases into the atmosphere. The objectives of this study were to develop an emissions inventory of air pollutants from oil and gas production in the Barnett Shale area, and to identify cost-effective emissions control options.

Emission sources from the oil and gas sector in the Barnett Shale area were divided into point sources, which included compressor engine exhausts and oil/condensate tanks, as well as fugitive and intermittent sources, which included production equipment fugitives, well drilling and fracing engines, well completions, gas processing, and transmission fugitives. The air pollutants considered in this inventory were smog-forming compounds ( $\text{NO}_x$  and VOC), greenhouse gases, and air toxic chemicals.

For 2009, emissions of smog-forming compounds from compressor engine exhausts and tanks were predicted to be approximately 96 tons per day (tpd) on an annual average, with peak summer emissions of 212 tpd. Emissions during the summer increase because of the effects of temperature on volatile organic compound emissions from storage tanks. Emissions of smog-forming compounds in 2009 from all oil and gas sources were estimated to be approximately 191 tpd on an annual average, with peak summer emissions of 307 tpd. The portion of those emissions originating from the 5-counties in the D-FW metropolitan area with significant oil and gas production was 165 tpd during the summer.

For comparison, 2009 emission inventories recently used by state and federal regulators estimated smog-forming emissions from all airports in the Dallas-Fort Worth metropolitan area to be 16 tpd. In addition, these same inventories had emission estimates for on-road motor vehicles (cars, trucks, etc.) in the 9-county Dallas-Fort Worth metropolitan area of 273 tpd. The portion of on-road motor vehicle emissions from the 5-counties in the D-FW metropolitan area with significant oil and gas production was 121 tpd, indicating that the oil and gas sector likely has greater emissions than motor vehicles in these counties.

The emission rate of air toxic compounds (like benzene and formaldehyde) from Barnett Shale activities was predicted to be approximately 6 tpd on an annual average, and 17 tpd during peak summer days. The largest contributors to air toxic emissions were the condensate tanks, followed by the engine exhausts.

In addition, predicted 2009 emissions of greenhouse gases like carbon dioxide and methane were approximately 33,000 tons per day of  $\text{CO}_2$  equivalent. This is roughly equivalent to the expected greenhouse gas impact from two 750 MW coal-fired power plants. The largest contributors to the Barnett Shale greenhouse gas impact were  $\text{CO}_2$  emissions from compressor engine exhausts and fugitive  $\text{CH}_4$  emissions from all source types.

Cost effective control strategies are readily available that can substantially reduce emissions, and in some cases, reduce costs for oil and gas operators. These options include:

- use of "green completions" to capture methane and VOC compounds during well completions,
- phasing in electric motors as an alternative to internal-combustion engines to drive compressors,
- the control of VOC emissions from condensate tanks with vapor recovery units, and
- replacement of high-bleed pneumatic valves and fittings on the pipeline networks with no-bleed alternatives.

## 2.0 BACKGROUND

### 2.1 Barnett Shale Natural Gas Production

The Barnett Shale is a geological formation that the Texas Railroad Commission (RRC) estimates to extend 5000 square miles in parts of at least 21 Texas counties. The hydrocarbon productive region of the Barnett Shale has been designated as the Newark East Field, and large scale development of the natural gas resources in the field began in the late 1990's. Figure 1 shows the rapid and continuing development of natural gas from the Barnett Shale over the last 10 years.<sup>(1)</sup>

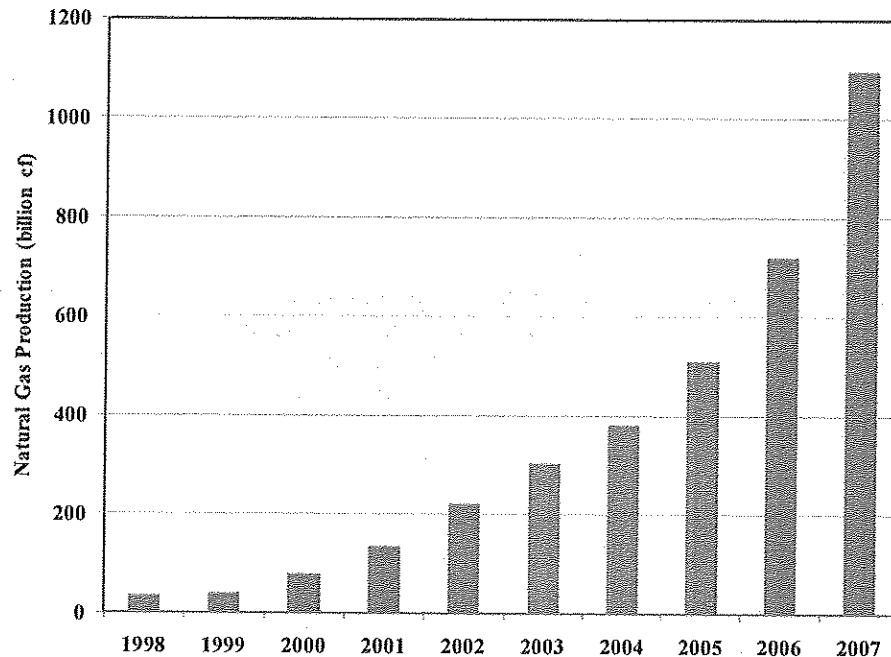


Figure 1. Barnett Shale Natural Gas Production, 1998-2007.

In addition to the recent development of the Barnett Shale, oil and gas production from other geologic formations and conventional sources in north central Texas existed before 1998 and continues to the present time. Production from the Barnett Shale is currently the dominant source of hydrocarbon production in the area from oil and gas activities in the area. Emission sources for all oil and gas activities are considered together in this report.

The issuance of new Barnett Shale area drilling permits has been following the upward trend of increasing natural gas production. The RRC issued 1112 well permits in 2004, 1629 in 2005, 2507 in 2006, 3657 in 2007, and they are on-track to issue over 4000 permits in 2008. The vast majority of the wells and permits are for natural gas production, but a small number of oil wells are also in operation or permitted in the area, and some oil wells co-produce casinghead gas. As of June 2008, over 7700 wells had been registered with the RRC, and the permit issuance rates are summarized in Table 1-1.<sup>(1)</sup> Annual oil, gas, condensate, and casinghead gas production rates for 21 counties in the Barnett Shale area are shown in Table 1-2.<sup>(1)</sup> The majority of Barnett Shale wells and well permits are located in six counties near the city of Fort Worth: Tarrant, Denton, Wise, Parker, Hood, and Johnson Counties. Figure 2 shows a RRC map of wells and well permits in the Barnett Shale.<sup>(2)</sup>

The top three gas producing counties in 2007 were Johnson, Tarrant and Wise, and the top three condensate producing counties were Wise, Denton, and Parker.

Nine (9) counties surrounding the cities of Fort Worth and Dallas have been designated by the U.S. EPA as the D-FW ozone nonattainment area (Tarrant, Denton, Parker, Johnson, Ellis, Collin, Dallas, Rockwall, and Kaufman ). Four of these counties (Tarrant, Denton, Parker, and Johnson) have substantial oil or gas production. In this report, these 9 counties are referred to as the D-FW metropolitan area. The areas outside these 9-counties with significant Barnett Shale oil or gas production are generally more rural counties to the south, west, and northwest of the city of Fort Worth. The counties inside and outside the D-FW metropolitan area with oil and gas production are listed in Table 1-3.

**Table 1-1. Barnett Shale Area Drilling Permits Issued, 2004-2008.<sup>(1)</sup>**

year	new drilling permits
2004	1112
2005	1629
2006	2507
2007	3657
2008	4000+

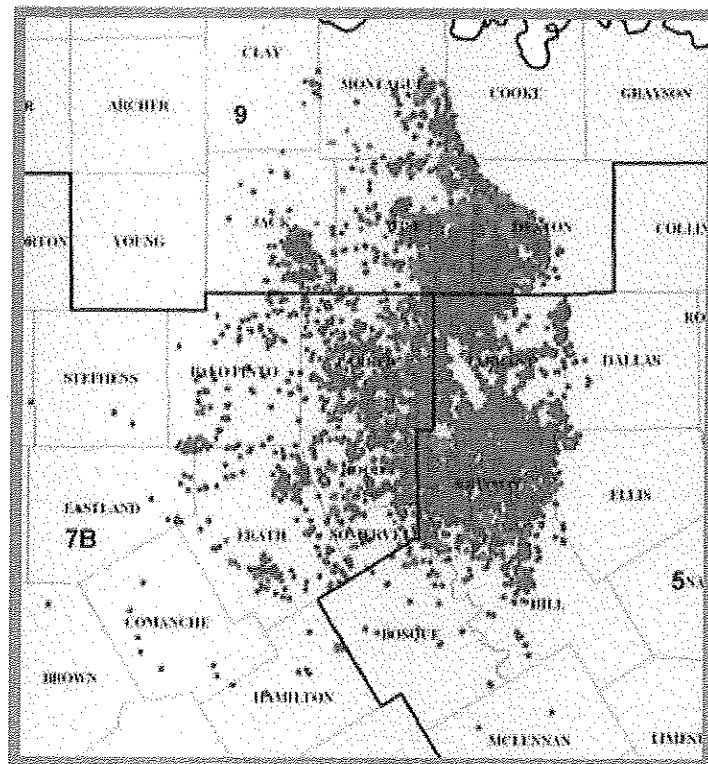
**Table 1-2. Hydrocarbon Production in the Barnett Shale Area in 2007.<sup>(1)</sup>**

County	Gas Production (MCF)	Condensate (BBL)	Casinghead Gas (MCF)	Oil Production (BBL)
Johnson	282,545,748	28,046	0	0
Tarrant	246,257,349	35,834	0	0
Wise	181,577,163	674,607	6,705,809	393,250
Denton	168,020,626	454,096	934,932	52,363
Parker	80,356,792	344,634	729,472	11,099
Hood	32,726,694	225,244	40,271	526
Jack	16,986,319	139,009	2,471,113	634,348
Palo Pinto	12,447,321	78,498	1,082,030	152,685
Stephens	11,149,910	56,183	3,244,894	2,276,637
Hill	7,191,823	148	0	0
Erath	4,930,753	11,437	65,425	5,073
Eastland	4,129,761	130,386	754,774	259,937
Somervell	4,018,269	6,317	0	0
Ellis	1,715,821	0	17,797	10
Comanche	560,733	1,584	52,546	7,055
Cooke	352,012	11,745	2,880,571	2,045,505
Montague	261,734	11,501	3,585,404	1,677,303
Clay	261,324	12,046	350,706	611,671
Hamilton	162,060	224	0	237
Bosque	135,116	59	0	0
Kaufman	0	0	3,002	61,963

**Table 1-3. Relationship Between the D-FW Metropolitan Area and Counties Producing Oil/Gas in the Barnett Shale Area**

<b>D-FW 9-County Metropolitan Area</b>	<b>D-FW Metro. Counties Producing Barnett Area Oil/Gas</b>	<b>Rural Counties Producing Barnett Area Oil/Gas</b>
Tarrant	Tarrant	Wise
Denton	Denton	Hood
Parker	Parker	Jack
Johnson	Johnson	Palo Pinto
Ellis	Ellis	Stephens
Collin		Hill
Dallas		Eastland
Rockwall		Somervell
Kaufman		Comanche
		Cooke
		Montague
		Clay
		Hamilton
		Bosque

**Figure 2. Texas RRC Map of Well and Well Permit Locations in the Barnett Shale Area (red = gas wells, green = oil wells, blue = permits. RRC district 5, 7B, & 9 boundaries shown in black.)**



## 2.2 Air Pollutants and Air Quality Regulatory Efforts

Oil and gas activities in the Barnett Shale area have the potential to emit a variety of air pollutants, including greenhouse gases, ozone and fine particle smog-forming compounds, and air toxic chemicals. The state of Texas has the highest greenhouse gas (GHG) emissions in the U.S., and future federal efforts to reduce national GHG emissions are likely to require emissions reductions from sources in the state. The three anthropogenic greenhouse gases of greatest concern, carbon dioxide, methane, and nitrous oxide, are emitted from oil and gas sources in the Barnett Shale area.

At present, air quality monitors in the Dallas-Fort Worth area show the area to be in compliance with the 1997 fine particulate matter (PM<sub>2.5</sub>) air quality standard, which is 15 micrograms per cubic meter (µg/m<sup>3</sup>) on an annual average basis. In 2006, the Clean Air Scientific Advisory Committee for EPA recommended tightening the standard to as low as 13 µg/m<sup>3</sup> to protect public health, but the EPA administrator kept the standard at the 1997 level. Fine particle air quality monitors in the Dallas-Fort Worth area have been above the 13 µg/m<sup>3</sup> level several times during the 2000-2007 time period, and tightening of the fine particle standard by future EPA administrators will focus regulatory attention at sources that emit fine particles or fine particle-forming compounds like NO<sub>x</sub> and VOC gases.

## 2.3 Primary Emission Sources Involved in Barnett Shale Oil and Gas Production

There are a variety of activities that potentially create air emissions during oil and gas production in the Barnett Shale area. The primary emission sources in the Barnett Shale oil and gas sector include compressor engine exhausts, oil and condensate tank vents, production well fugitives, well drilling and hydraulic fracturing, well completions, natural gas processing, and transmission fugitives. Figure 3 shows a diagram of the major machinery and process units in the natural gas system.<sup>(3)</sup>

### 2.3.1 – Point Sources

#### *i. Compressor Engine Exhausts*

Internal combustion engines provide the power to run compressors that assist in the production of natural gas from wells, pressurize natural gas from wells to the pressure of lateral lines, and power compressors that move natural gas in large pipelines to and from processing plants and through the interstate pipeline network. The engines are often fired with raw or processed natural gas, and the combustion of the natural gas in these engines results in air emissions. Most of the engines driving compressors in the Barnett Shale area are between 100 and 500 hp in size, but some large engines of 1000+ hp are also used.

#### *ii. Condensate and Oil Tanks*

Fluids that are brought to the surface at Barnett Shale natural gas wells are a mixture of natural gas, other gases, water, and hydrocarbon liquids. Some gas wells produce little or no condensate, while others produce large quantities. The mixture typically is sent first to a separator unit, which reduces the pressure of the fluids and separates the natural gas and other gases from any entrained water and hydrocarbon liquids. The gases are collected off the top of the separator, while the water and hydrocarbon liquids fall to the bottom and are then stored on-site in storage tanks. The hydrocarbon liquid is known as condensate.

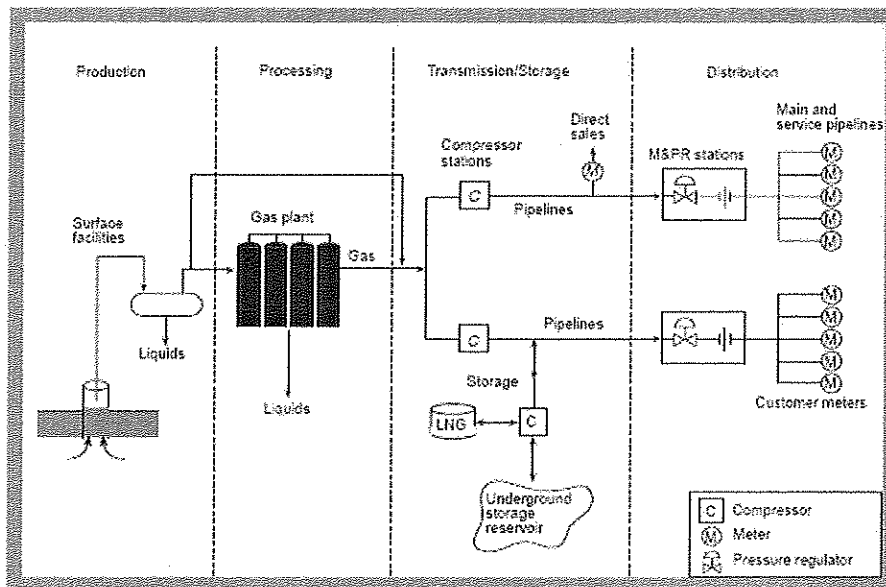


Figure 3. Major Units in The Natural Gas Industry From Wells to Customers. <sup>(3)</sup>

The condensate tanks at Barnett Shale wells are typically 10,000 to 20,000 gallons and hydrocarbons vapors from the condensate tanks can be emitted to the atmosphere through vents on the tanks. Condensate liquid is periodically collected by truck and transported to refineries for incorporation into liquid fuels, or to other processors. At oil wells, tanks are used to store crude oil on-site before the oil is transported to refiners. Like the condensate tanks, oil tanks can be sources of hydrocarbon vapor emissions to the atmosphere through tank vents.

### 2.3.2 – Fugitive and Intermittent Sources

#### i. Production Fugitive Emissions

Natural gas wells can contain a large number of individual components, including pumps, flanges, valves, gauges, pipe connectors, compressors, and other pieces. These components are generally intended to be tight, but leaks are not uncommon and some leaks can result in large emissions of hydrocarbons and methane to the atmosphere. The emissions from such leaks are called "fugitive" emissions. These fugitive emissions can be caused by routine wear, rust and corrosion, improper installation or maintenance, or overpressure of the gases or liquids in the piping. In addition to the unintended fugitive emissions, pneumatic valves which operate on pressurized natural gas leak small quantities of natural gas by design during normal operation. Natural gas wells, processing plants, and pipelines often contain large numbers of these kinds of pneumatic valves, and the accumulated emissions from all the valves in a system can be significant.

#### ii. Well Drilling, Hydraulic Fracturing, and Completions

Oil and gas drilling rigs require substantial power to from wellbores by driving drill bits to the depths of hydrocarbon deposits. In the Barnett Shale, this power is typically provided by transportable diesel engines, and operation of these engines generates exhaust from the burning of diesel fuel. After the wellbore is formed, additional power is needed to operate the pumps that move large quantities of water,

sand/glass, or chemicals into the wellbore at high pressure to hydraulically fracture the shale to increase its surface area and release natural gas.

After the wellbore is formed and the shale fractured, an initial mixture of gas, hydrocarbon liquids, water, sand, or other materials comes to the surface. The standard hardware typically used at a gas well, including the piping, separator, and tanks, are not designed to handle this initial mixture of wet and abrasive fluid that comes to the surface. Standard practice has been to vent or flare the natural gas during this "well completion" process, and direct the sand, water, and other liquids into ponds or tanks. After some time, the mixture coming to the surface will be largely free of the water and sand, and then the well will be connected to the permanent gas collecting hardware at the well site. During well completions, the venting/flaring of the gas coming to the surface results in a loss of potential revenue and also in substantial methane and VOC emissions to the atmosphere.

### *iii. Natural Gas Processing*

Natural gas produced from wells is a mixture of a large number of gases and vapors. Wellhead natural gas is often delivered to processing plants where higher molecular weight hydrocarbons, water, nitrogen, and other compounds are largely removed if they are present. Processing results in a gas stream that is enriched in methane at concentrations of usually more than 80%. Not all natural gas requires processing, and gas that is already low in higher hydrocarbons, water, and other compounds can bypass processing.

Processing plants typically include one or more glycol dehydrators, process units that dry the natural gas. In addition to water, the glycol absorbent usually collects significant quantities of hydrocarbons, which can be emitted to the atmosphere when the glycol is regenerated with heat. The glycol dehydrators, pumps, and other machinery used in natural gas processing can release methane and hydrocarbons into the atmosphere, and emissions also originate from the numerous flanges, valves, and other fittings.

### *iv. Natural Gas Transmission Fugitives*

Natural gas is transported from wells in mostly underground gathering lines that form networks that can eventually collect gas from hundreds or thousands of well locations. Gas is transported in pipeline networks from wells to processing plants, compressor stations, storage formations, and/or the interstate pipeline network for eventual delivery to customers. Leaks from pipeline networks, from microscopic holes, corrosion, welds and other connections, as well as from compressor intake and outlet seals, compressor rod packing, blow and purge operations, pipeline pigging, and from the large number of pneumatic devices on the pipeline network can result in large emissions of methane and hydrocarbons into the atmosphere and lost revenue for producers.

## 2.4 Objectives

Barnett Shale area oil and gas production can emit pollutants to the atmosphere which contribute to ozone and fine particulate matter smog, are known toxic chemicals, or contribute to climate change. The objectives of this study were to examine Barnett Shale oil and gas activities and : (1) estimate emissions of volatile organic compounds, nitrogen oxides, hazardous air pollutants, methane, carbon dioxide, and nitrous oxide; (2) evaluate the current state of regulatory controls and engineering techniques used to control emissions from the oil and gas sector in the Barnett Shale; (3) identify new approaches that can be taken to reduce emissions from Barnett Shale activities; and (4) estimate the emissions reductions and cost effectiveness of implementation of new emission reduction methods.

### 3.0 TECHNICAL APPROACH

#### 3.1 Pollutants

Estimates were made of 2007 and 2009 emissions of smog forming, air toxic, and greenhouse gas compounds, including nitrogen oxides ( $\text{NO}_x$ ), volatile organic compounds (VOCs), air toxics a.k.a. hazardous air pollutants (HAPs), methane ( $\text{CH}_4$ ), nitrous oxide ( $\text{N}_2\text{O}$ ), and carbon dioxide ( $\text{CO}_2$ ). Volatile organic compounds are generally carbon and hydrogen-based chemicals that exist in the gas phase or can evaporate from liquids. VOCs can react in the atmosphere to form ozone and fine particulate matter. Methane and ethane are specifically excluded from the definition of VOC because they react slower than the other VOC compounds to produce ozone and fine particles, but they are ozone-causing compounds nonetheless. The HAPs analyzed in this report are a subset of the VOC compounds, and include those compounds that are known or believed to cause human health effects at low doses. An example of a HAP compound is benzene, which is an organic compound known to contribute to the development of cancer.

Emissions of the greenhouse gases  $\text{CO}_2$ ,  $\text{CH}_4$ , and  $\text{N}_2\text{O}$  were determined individually, and then combined as carbon dioxide equivalent tons ( $\text{CO}_2\text{e}$ ). In the combination,  $\text{CH}_4$  tons were scaled by 21 and  $\text{N}_2\text{O}$  tons by 310 to account for the higher greenhouse gas potentials of these gases.<sup>(4)</sup>

Emissions in 2009 were estimated by examining recent trends in Barnett Shale hydrocarbon production, and where appropriate, extrapolating production out to 2009.

State regulatory programs are different for compressor engines inside the D-FW 9-county metropolitan area compared to outside. Engine emissions were determined separately for the two groups.

#### 3.2 Hydrocarbon Production

Production rates in 2007 for oil, gas, casinghead gas, and condensate were obtained from the Texas Railroad Commission for each county in the Barnett Shale area.<sup>(5)</sup> The large amount of production from wells producing from the Barnett Shale, as well as the smaller amounts of production from conventional formations in the area were taken together. The area was analyzed in whole, as well as by counties inside and outside the D-FW 9-county metropolitan area. Production rates in 2009 were predicted by plotting production rates from 2000-2007 and fitting a 2<sup>nd</sup>-order polynomial to the production rates via the least-squares method and extrapolating out to 2009.

#### 3.3 Compressor Engine Exhausts - Emission Factors and Emission Estimates

Emissions from the natural-gas fired compressor engines in the Barnett Shale were calculated for two types of engines: the generally large engines that had previously reported emissions into the TCEQ's Point Source Emissions Inventory (PSEI) prior to 2007 (a.k.a. PSEI Engines), and the generally smaller engines that had not previously reported emissions (a.k.a. non-PSEI Engines). Both these engine types are located in the D-FW 9-county metropolitan area (a.k.a. D-FW Metro Area), as well as in the rural counties outside the metropolitan area (a.k.a. Outside D-FW Metro Area). The four categories of engines are summarized in Figure 4 and the methods used to estimate emissions from the engines are described in the following sections.



Figure 4. Engine Categories.

Non-PSEI Engines in D-FW Metro Area	PSEI Engines in D-FW Metro Area	PSEI Engines Outside D-FW Metro Area	Non-PSEI Engines Outside D-FW Metro Area
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*i. Non-PSEI Engines in D-FW Metropolitan Area*

Large natural gas compressor engines, located primarily at compressor stations and also some at well sites, have typically reported emissions to the Texas Commission on Environmental Quality (TCEQ) in annual Point Source Emissions Inventory (PSEI) reports. However, prior to 2007, many other stationary engines in the Barnett Shale area had not reported emissions to the PSEI and their contribution to regional air quality was unknown. In late 2007, the TCEQ conducted an engine survey for counties in the D-FW metropolitan area as part as efforts to amend the state clean air plan for ozone. Engine operators reported engine counts, engine sizes, NO<sub>x</sub> emissions, and other data to TCEQ. Data summarized by TCEQ from the survey was used for this report to estimate emissions from natural gas engines in the Barnett Shale area that had previously not reported emissions into the annual PSEI.<sup>(6)</sup> Data obtained from TCEQ included total operating engine power in the metropolitan area, grouped by rich vs. lean burn engines, and also grouped by engines smaller than 50 hp, between 50 - 500 hp, and larger than 500 hp.

Regulations adopted by TCEQ and scheduled to take effect in early 2009 will limit NO<sub>x</sub> emissions in the D-FW metropolitan area for engines larger than 50 horsepower.<sup>(7)</sup> Rich burn engines will be restricted to 0.5 g/hp-hr, lean burn engines installed or moved before June 2007 will be restricted to 0.7 g/hp-hr, and lean burn engines installed or moved after June 2007 will be limited to 0.5 g/hp-hr. For this report, emissions in 2009 from the engines in the metropolitan area subject to the new rules were estimated assuming 97% compliance with the upcoming rules and a 3% noncompliance factor for engines continuing to emit at pre-2009 levels.

Emissions for 2007 were estimated using NO<sub>x</sub> emission factors provided by operators to TCEQ in the 2007 survey.<sup>(6)</sup> Emissions of VOCs were determined using TCEQ-determined emission factors, and emissions of HAPs, CH<sub>4</sub>, and CO<sub>2</sub> were determined using emission factors from EPA's AP-42 document.<sup>(8,9)</sup> In AP-42, EPA provides emission factors for HAP compounds that are created by incomplete fuel combustion. For this report only those factors which were judged by EPA to be of high quality, "A" or "B" ratings, were used to estimate emissions. Emission factors for the greenhouse gas N<sub>2</sub>O were from an emissions inventory report issued by the American Petroleum Institute.<sup>(10)</sup>

Beginning in 2009, many engines subject to the new NO<sub>x</sub> limits are expected to reduce their emissions with the installation of non-selective catalytic reduction units (NSCR), a.k.a. three-way catalysts. NSCR units are essentially modified versions of the "catalytic converters" that are standard equipment on every gasoline-engine passenger vehicle in the U.S.

A likely co-benefit of NSCR installation will be the simultaneous reduction of VOC, HAP, and CH<sub>4</sub> emissions. Emissions from engines expected to install NSCR units were determined using a 75% emissions reduction factor for VOC, HAPs, and CH<sub>4</sub>. Conversely, NSCR units are known to increase N<sub>2</sub>O emissions, and N<sub>2</sub>O emissions were estimated using a 3.4x factor increase over uncontrolled emission factors.<sup>(10)</sup> Table 2 summarizes the emission factors used to calculate emissions from the compressor engines identified in the 2007 survey.

**Table 2. Emission Factors for Engines Identified in the D-FW 2007 Engine Survey**

Table 2-1. Emission Factors for 2007 Emissions

engine type	engine size	NO <sub>x</sub> (g/hp-hr) <sup>a</sup>	VOC (g/hp-hr) <sup>b</sup>	HAPs (g/hp-hr) <sup>c</sup>	CH <sub>4</sub> (g/hp-hr) <sup>d</sup>	CO <sub>2</sub> (g-hp-hr) <sup>e</sup>	N <sub>2</sub> O (g-hp-hr) <sup>f</sup>
rich	<50	13.6	0.43	0.088	0.89	424	0.0077
rich	50-500	13.6	0.43	0.088	0.89	424	0.0077
rich	>500	0.9	0.43	0.088	0.89	424	0.0077
lean	<500	6.2	1.6	0.27	4.8	424	0.012
lean	>500	0.9	1.6	0.27	4.8	424	0.012

Table 2-2. Emission Factors for 2009 Emissions

engine type	engine size	NO <sub>x</sub> (g/hp-hr) <sup>i</sup>	VOC (g/hp-hr) <sup>j</sup>	HAPs (g/hp-hr) <sup>k</sup>	CH <sub>4</sub> (g/hp-hr) <sup>l</sup>	CO <sub>2</sub> (g-hp-hr) <sup>m</sup>	N <sub>2</sub> O (g-hp-hr) <sup>n</sup>
rich	<50	13.6	0.43	0.088	0.89	424	0.0077
rich	50-500	0.5	0.11	0.022	0.22	424	0.026
rich	>500	0.5	0.11	0.022	0.22	424	0.026
lean <sup>g</sup>	<500	0.62	1.6	0.27	4.8	424	0.012
lean <sup>h</sup>	<500	0.5	1.6	0.27	4.8	424	0.012
lean <sup>g</sup>	>500	0.7	1.45	0.27	4.8	424	0.012
lean <sup>h</sup>	>500	0.5	1.45	0.27	4.8	424	0.012

notes:

a: email from TCEQ to SMU, August 1, 2008, summary of results from 2007 engine survey (reference 6).

b: email from TCEQ to SMU, August 6, 2008 (reference 8).

c: EPA, AP-42, quality A and B emission factors; rich engine HAPs = benzene, formaldehyde, toluene; lean engine HAPs = acetaldehyde, acrolein, xylene, benzene, formaldehyde, methanol, toluene, xylene (reference 9).

d: EPA, AP-42 (reference 9).

e: EPA, AP-42 (reference 9).

f: API Compendium Report (reference 10).

g: engines installed or moved before June 2007 - TCEQ regulations establish different regulatory limits for engines installed or moved before or after June 2007 (reference 7).

h: engines installed or moved after June 2007 - TCEQ regulations establish different regulatory limits for engines installed or moved before or after June 2007 (reference 7).

i: rich (<50) factor from email from TCEQ to SMU, August 1, 2008 (reference 6); rich (50-500), rich (>500), lean (<500, post-2007), lean (>500, pre-2007), and lean (>500, post-2007) from TCEQ regulatory limits (reference 7); lean (<500, pre-2007) estimated with 90% control.

j: rich (<50) from email from TCEQ to SMU (reference 8); rich (50-500) and rich (>500) estimated with 75% NSCR control VOC co-benefit; lean EFs from email from TCEQ to SMU (reference 8). Large lean engine VOC emission factor adjusted from 1.6 to 1.45 to account for the effects of NSPS JJJJ rules on VOC emissions.

k: EPA, AP-42 (reference 9); rich (50-500) and rich (>500) estimated with 75% control co-benefit.

l: EPA, AP-42 (reference 9); rich (50-500) and rich (>500) estimated with 75% control co-benefit.

m: EPA, AP-42 (reference 9).

n: API Compendium Report (reference 10); rich (50-500) and rich (>500) estimated with 3.4x N<sub>2</sub>O emissions increase over uncontrolled rate.

Annual emissions from the engines identified in the 2007 survey were estimated using the pollutant-specific emission factors from Table 1 together with Equation 1,

$$M_{E,i} = 1.10E-06 * E_i * P_{cap} * F_{hl} \quad (1)$$

where  $M_{E,i}$  was the mass emission rate of pollutant  $i$  in tons per year,  $E_i$  was the emission factor for pollutant  $i$  in grams/hp-hr,  $P_{cap}$  is installed engine capacity in hp, and  $F_{hl}$  is a factor to adjust for annual hours of operation and typical load conditions.

Installed engine capacity in 2007 was determined for six type/size categories using TCEQ estimates from the 2007 engine survey - two engine types (rich vs. lean) and three engine size ranges (<50, 50-500, >500 hp) were included.<sup>(6)</sup> TCEQ estimates of the average engine sizes and the numbers of engines in each size category were used to calculate the installed engine capacity for each category, as shown in Table 3. The  $F_{hl}$  factor was used to account for typical hours of annual operation and average engine loads. A  $F_{hl}$  value of 0.5 was used for this study, based on 8000 hours per year of average engine operation ( $8000/8760 = 0.91$ ) and operating engine loads of 55% of rated capacity, giving an overall hours-load factor of  $0.91 \times 0.55 = 0.5$ .<sup>(11)</sup>

**Table 3. Installed Engine Capacity in 2007 D-FW Engine Survey by Engine Type and Size**

engine type	engine size (hp)	number of engines <sup>a</sup>	typical size <sup>a</sup> (hp)	installed capacity <sup>r</sup> (hp)
rich	<50	12	50	585
rich	50-500	724	140	101,000
rich	>500	200	1400	280,000
lean <sup>o</sup>	<500	14	185	2540
lean <sup>p</sup>	<500	13	185	2400
lean <sup>o</sup>	>500	103	1425	147,000
lean <sup>p</sup>	>500	103	1425	147,000

notes:

o: engines installed or moved before June 2007 - TCEQ regulations establish different regulatory limits for engines installed or moved before or after June 2007 (reference 7).

p: engines installed or moved after June 2007 - TCEQ regulations establish different regulatory limits for engines installed or moved before or after June 2007 (reference 7).

q: rich (<50) installed capacity based on HARC October 2006 H68 report which found that small rich burn engines comprise no more than 1% of engines in East Texas; rich (50-500) and rich (>500) installed capacity from email TCEQ to SMU in August 1, 2008 (reference 6); lean burn installed capacity from email TCEQ to SMU in August 1, 2008 (reference 6) along with RRC data suggesting that 50% of engines in 2009 will be subject to the post-June 2007 NOx rule.

r: installed capacity = number of engines x typical size

## ii. PSEI Engines in D-FW Metropolitan Area

In addition to the engines identified in the 2007 TCEQ survey of the D-FW 9-county metropolitan area, many other stationary engines are also in use in the area. These include engines that had already been reporting annual emissions to TCEQ in the PSEI, which are principally large engines at compressor stations.<sup>(12)</sup>

Emissions of NO<sub>x</sub> from large engines in the D-FW metropolitan area that were reporting to the TCEQ PSEI were obtained from the 2006 Annual PSEI, the most recent calendar year available.<sup>(12)</sup> Emissions for 2007 and 2009 were estimated by extrapolating 2006 emissions upward to account for increases in gas production and compression needs from 2006-2009. For NO<sub>x</sub> emissions in 2006 and 2007, an average emission factor of 0.9 g/hp-hr was obtained from TCEQ.<sup>(8)</sup> Emissions in 2009 were adjusted by accounting for the 0.5 g/hp-hr TCEQ regulatory limit scheduled to take effect in early 2009 for the D-FW metropolitan area.<sup>(7)</sup>

Unlike NO<sub>x</sub> emission, emissions of VOC were not taken directly from the PSEI. Estimates of future VOC emissions required accounting for the effects that the new TCEQ engine NO<sub>x</sub> limits will have on future VOC emissions. A compressor engine capacity production factor of 205 hp/(MMcf/day) was obtained from TCEQ that gives a ratio of installed horsepower capacity to the natural gas production. The 205 hp/(MMcf/day) factor was based on previous TCEQ studies of gas production and installed large engine capacity. The factor was used with 2006 gas production values to estimate installed PSEI engine capacities for each county in the Barnett Shale area.<sup>(8)</sup> Engine capacities were divided between rich burn engines smaller and larger than 500 hp, and lean burn engines. To estimate 2009 emissions, rich burn engines smaller than 500 hp are expected to have NSCR units by 2009 and get 75% VOC, HAP, and CH<sub>4</sub> control. Table 4 summarizes the VOC, HAP, and greenhouse gas emission factors used for the PSEI engines in the D-FW metropolitan area. Table 5 summarizes the estimates of installed engine capacity for each engine category.

**Table 4. VOC, HAP, GHG Emission Factors for PSEI Engines in D-FW Metropolitan Area**

Table 4-1. Emission Factors for 2007 Emissions

engine type	engine size	VOC EFs (g/hp-hr) <sup>s</sup>	HAPs EF (g/hp-hr) <sup>t</sup>	CH <sub>4</sub> EF (g/hp-hr) <sup>u</sup>	CO <sub>2</sub> EF (g/hp-hr) <sup>v</sup>	N <sub>2</sub> O (g/hp-hr) <sup>w</sup>
rich	<500	0.43	0.088	0.89	424	0.0077
rich	>500	0.11	0.022	0.22	424	0.026
lean	all	1.6	0.27	4.8	424	0.012

Table 4-2. Emission Factors for 2009 Emissions

engine type	engine size	VOC EFs (g/hp-hr) <sup>s</sup>	HAPs EF (g/hp-hr) <sup>t</sup>	CH <sub>4</sub> EF (g/hp-hr) <sup>u</sup>	CO <sub>2</sub> EF (g/hp-hr) <sup>v</sup>	N <sub>2</sub> O (g/hp-hr) <sup>w</sup>
rich	<500	0.11	0.022	0.22	424	0.026
rich	>500	0.11	0.022	0.22	424	0.026
lean	all	1.47	0.27	4.8	424	0.012

notes:

s: email from TCEQ to SMU, August 6, 2008; 75% reductions applied to 2007 rich (>500), 2009 rich (>500) and 2009 rich (<500) engines (reference 8). Large lean engine VOC emission factor adjusted from 1.6 to 1.47 to account for the effects of NSPS JJJJ rules on VOC emissions.

t: EPA, AP-42 (reference 9); 75% reductions applied to 2007 rich (>500), 2009 rich (>500) and 2009 rich (<500) engines (reference 9).

u: EPA, AP-42 (reference 9) ; 75% reductions applied to 2007 rich (>500), 2009 rich (>500) and 2009 rich (<500) engines (reference 9).

v: EPA, AP-42 (reference 9).

w: API Compendium Report; 2007 rich (>500), and 2009 rich (>500) and 2009 rich (<500) engines estimated with 3.4x N<sub>2</sub>O emissions increase over uncontrolled rate (reference 10).

**Table 5. Installed Engine Capacity in 2007 for PSEI Engines Inside D-FW Metropolitan Area**

engine type	engine size (hp)	installed capacity (%) <sup>x</sup>	installed capacity (hp) <sup>y</sup>
rich	<500	0.14	59,500
rich	>500	0.52	221,000
lean	all	0.34	144,000

notes:

x: distribution of engine types and sizes estimated from October 2006 HARC study (reference 13).

y: estimated as the installed capacity (%) x the total installed capacity based on the TCEQ compressor engine capacity production factor of 205 hp/(MMcf/day) (references 5,8).

### iii. PSEI Engines Outside D-FW Metropolitan Area

Emissions of NO<sub>x</sub> from large engines outside the D-FW metropolitan area reporting to the TCEQ were obtained from the 2006 PSEI.<sup>(12)</sup> Emissions for 2007 and 2009 were estimated by extrapolating 2006 emissions upward to account for increases in gas production from 2006-2009. Unlike engines inside the metropolitan area, the engines outside the metropolitan area are not subject to the new D-FW engine rules scheduled to take effect in 2009.

In addition to the D-FW engine rules, in 2007 the TCEQ passed the East Texas Combustion Rule that limited NO<sub>x</sub> emissions from rich-burn natural gas engines larger than 240 hp in certain east Texas counties. Lean burn engines and engines smaller than 240 hp were exempted. The initial proposed rule would have applied to some counties in the Barnett Shale production area, including Cooke, Wise, Hood, Somervell, Bosque, and Hill, but in the final version of the rule these counties were removed from applicability, with the exception of Hill, which is still covered by the rule. Since gas production from Hill County is less than 3.5% of all the Barnett Shale area gas produced outside the D-FW metropolitan area, the East Texas Combustion Rule has limited impact to emissions from Barnett Shale area activity.

Emissions of VOC, HAPs, and greenhouse gases for large engines outside the D-FW metropolitan area were not obtained from the 2006 PSEI. A process similar to the one used to estimate emissions from large engines inside the metropolitan area was used, whereby the TCEQ compressor engine capacity production factor, 205 hp/(MMcf/day), was used along with actual 2007 production rates to estimate total installed engine capacity as well as installed capacity in each county for different engine categories. Pollutant-specific emission factors were applied to the capacity estimates for each category to estimate emissions. Table 6 summarizes the emission factors used to estimate emissions from engines in the PSEI outside the D-FW metropolitan area. The engine capacities used to estimate emissions are shown in Table 7.

**Table 6. VOC, HAP, GHG Emission Factors for PSEI Engines Outside D-FW Metropolitan Area**

engine type	engine size	VOC (g/hp-hr) <sup>z</sup>	HAPs (g/hp-hr) <sup>aa</sup>	CH <sub>4</sub> (g/hp-hr) <sup>aa</sup>	CO <sub>2</sub> (g-hp-hr) <sup>bb</sup>	N <sub>2</sub> O (g-hp-hr) <sup>cc</sup>
rich	<500	0.43	0.088	0.89	424	0.0077
rich	>500	0.11	0.022	0.22	424	0.026
lean	all	1.45	0.27	4.8	424	0.012

notes:

z: email from TCEQ to SMU, August 6, 2008; 75% control applied to rich (>500) engines (reference 8). Large lean engine VOC emission factor adjusted from 1.6 to 1.45 to account for the effects of NSPS JJJJ rules on VOC emissions.

aa: EPA, AP-42; 75% control applied to rich (>500) engines (reference 9).

bb. EPA, AP-42 (reference 9).

cc. API Compendium Report; rich (>500) engines estimated with 3.4x N<sub>2</sub>O emissions increase over uncontrolled rate (reference 10).

**Table 7. Installed Engine Capacity in 2007 for PSEI Engines Outside D-FW Metropolitan Area**

engine type	engine size (hp)	installed capacity (%) <sup>dd</sup>	installed capacity (hp) <sup>ee</sup>
rich	<500	0.14	17,000
rich	>500	0.52	62,000
lean	all	0.34	41,000

notes:

dd: distribution of engine types and sizes estimated from October 2006 HARC study (reference 13).

ee: estimated as the installed capacity (%) x the total installed capacity based on the TCEQ compressor engine capacity production factor of 205 hp/(MMcf/day) (references 5,8).

#### *iv. Non-PSEI Engines Outside the D-FW Metropolitan Area*

The Point Source Emissions Inventory (PSEI) only contains emissions from a fraction of the stationary engines in the Barnett Shale area, principally the larger compressor engines with emissions above the PSEI reporting thresholds. The 2007 TCEQ engine survey of engines inside the D-FW metropolitan area demonstrated that the PSEI does not include a substantial fraction of total engine emissions. Most of the missing engines in the metropolitan area were units with emissions individually below the TCEQ reporting thresholds, but the combined emissions from large numbers of smaller engines can be substantial. The results of the 2007 survey indicated that there were approximately 680,000 hp of installed engine capacity in the D-FW metropolitan area not previously reporting to the PSEI.<sup>(6)</sup>

Natural gas and casinghead gas production from metropolitan counties in 2007 was approximately 1,000 Bcf. A "non-PSEI" compressor engine capacity production factor of 226 hp/(MMcf/day) was determined for the Barnett Shale area. This capacity factor accounts for all the small previously hidden engines that the 2007 survey showed come into use in oil and gas production activities in the area. This production factor was used along with 2007 gas production rates for the counties outside the D-FW metropolitan area to estimate non-PSEI engine emissions from these counties. The new production factor accounts for the fact that counties outside the metro area likely contain previously unreported engine capacity in the same proportion to the unreported engine capacity that was identified during the 2007 engine survey inside the metro area. Without a detailed engine survey in the rural counties of the same scope as the 2007 survey performed within the D-FW metropolitan counties, use of the non-PSEI production factor provides a way to estimate emissions from engines not yet in state or federal inventories. The capacity of non-PSEI reporting engines in the rural counties of the Barnett Shale was determined by this method to be 132,000 hp. Emission factors used to estimate emissions from these engines, and the breakdown of total installed engine capacity into engine type and size categories, are shown in Tables 8 and 9.

**Table 8. Emission Factors for Non-PSEI Engines Outside D-FW Metropolitan Area**

engine type	engine size	NO <sub>x</sub> (g/hp-hr) <sup>ff</sup>	VOC (g/hp-hr) <sup>gg</sup>	HAPs (g/hp-hr) <sup>hh</sup>	CH <sub>4</sub> (g/hp-hr) <sup>hh</sup>	CO <sub>2</sub> (g-hp-hr) <sup>ii</sup>	N <sub>2</sub> O (g-hp-hr) <sup>jj</sup>
rich	<50	13.6	0.43	0.088	0.89	424	0.0077
rich	50-500	10.3	0.43	0.088	0.89	424	0.0077
rich	>500	0.89	0.11	0.022	0.22	424	0.026
lean	<500	5.2	1.45	0.27	4.8	424	0.012
lean	>500	0.9	1.6	0.27	4.8	424	0.012

notes:

ff: email from TCEQ to SMU, August 1, 2008 (reference 6). Rich burn engines 50-500 hp NO<sub>x</sub> emission factor adjusted from 13.6 to 10.3 to account for the effects of NSPS JJJJ rules on NO<sub>x</sub> emissions and the effect of the TCEQ East Texas Combustion Rule on Hill County production. Rich burn engines >500 adjusted from 0.9 to 0.89 to account for the effect of the TCEQ East Texas Combustion Rule on Hill County production. Lean burn <500 hp engine post-2007 emission factor adjusted from 6.2 to 5.15 to account for the effects of NSPS JJJJ rules on NO<sub>x</sub> emissions.

gg: email from TCEQ to SMU, August 6, 2008; rich (>500) based on 75% control (reference 8). Small lean engine VOC emission factor adjusted from 1.6 to 1.45 to account for the effects of NSPS JJJJ rules on VOC emissions.

hh: EPA, AP-42; rich (>500) based on 75% control (reference 9).

ii: EPA, AP-42 (reference 9).

jj: API Compendium Report; rich (>500) estimated with 3.4x N<sub>2</sub>O emissions increase over uncontrolled rate (reference 10).

**Table 9. Installed Engine Capacity for Non-PSEI Engines Outside Metropolitan Area by Engine Type/Size**

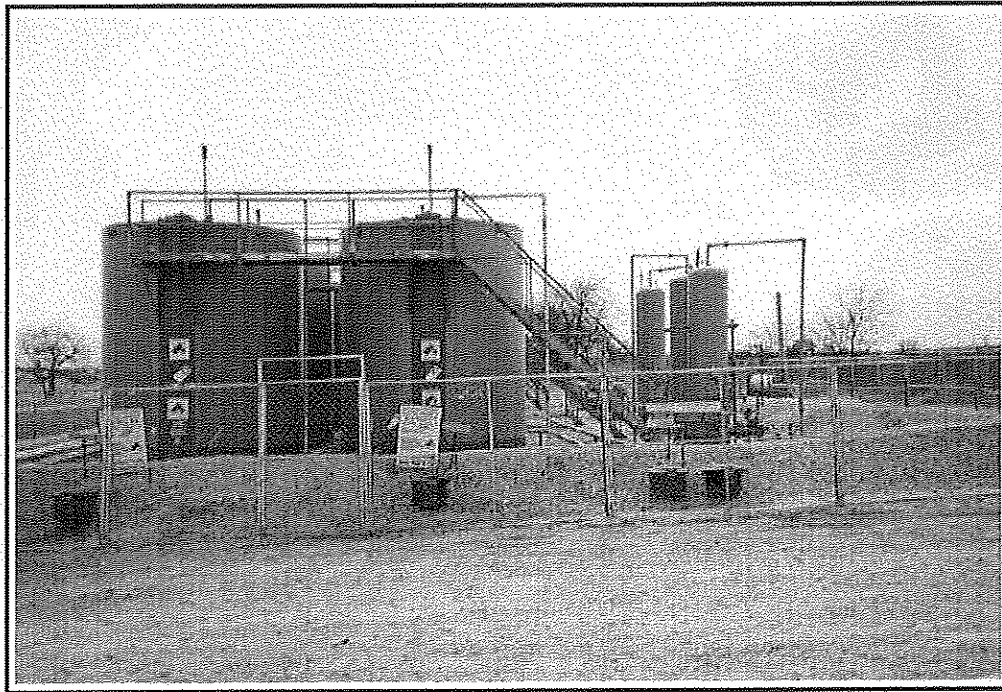
engine type	engine size (hp)	installed capacity (%)	installed capacity (hp)
rich	<50	0.01	110
rich	50-500	15	20,000
rich	>500	41	55,000
lean	<500	0.73	970
lean	>500	43	57,000

### 3.2 Condensate and Oil Tanks - Emission Factors and Emission Estimates

Condensate and oil tanks can be significant emitters of VOC, methane, and HAPs. A report was published in 2006 by URS Corporation which presented the results of a large investigation of emissions from condensate and oil tanks in Texas.<sup>(14)</sup> Tanks were sampled from 33 locations across East Texas, including locations in the Barnett Shale area. Condensate tanks in the Barnett Shale were sampled in Denton and Parker Counties, and oil tanks were sampled in Montague County. The results from the URS investigation were used in this study to calculate Barnett Shale-specific emission factors for VOC, CH<sub>4</sub>, HAPs, and CO<sub>2</sub>, instead of using a more general Texas-wide emission factor. The URS study was conducted during daylight hours in July 2006, when temperatures in North Texas are significantly above the annual average. Therefore, the results of the URS investigation were used to calculate "Peak Summer" emissions. The HAPs identified in the URS study included n-hexane, benzene, trimethylpentane, toluene, ethylbenzene, and xylene. The emission factors used to calculate peak summer emissions from Barnett

Shale condensate and oil tanks are shown in Table 10-1. Figure 5 shows a condensate tank battery from the 2006 URS study report.

**Figure 5. Example Storage Tank Battery (left), Separators (right), and Piping.<sup>(14)</sup>**



Computer modeling data were provided during personal communications with a Barnett Shale gas producer who estimated VOC, CH<sub>4</sub>, HAPs, and CO<sub>2</sub> emissions from a number of their condensate tanks.<sup>(15)</sup> The tanks were modeled with ambient temperatures of 60 F, which the producer used to represent annual hourly mean temperatures in the D-FW area. These modeling results were used in this report to predict annual average condensate tank emission factors for the Barnett Shale area. The annual average emission factors are shown in Table 10-2.



**Table 10. Condensate and Oil Tank Emission Factors for the Barnett Shale.**

Table 10-1. Peak Summer Emission Factors.<sup>(14)</sup>

	VOC (lbs/bbl)	HAPs (lbs/bbl)	CH <sub>4</sub> (lbs/bbl)	CO <sub>2</sub> (lbs/bbl)
condensate	48	3.7	5.6	0.87
oil	6.1	0.25	0.84	2.7

Table 10-2. Annual Average Emission Factors.<sup>(15)</sup>

	VOC (lbs/bbl)	HAPs (lbs/bbl)	CH <sub>4</sub> (lbs/bbl)	CO <sub>2</sub> (lbs/bbl)
condensate	10	0.20	1.7	0.23
oil	1.3	0.013	0.26	0.70

Emissions for 2007 were calculated for each county in the Barnett Shale area, using condensate and oil production rates from the RRC.<sup>(5)</sup> Emissions for 2009 were estimated with the extrapolated 2000-2007 production rates for the year 2009. Emissions were calculated with Equation 2,

$$M_{T,i} = E_i * P_c * C / 2000 \quad (2)$$

where  $M_{T,i}$  was the mass emission rate of pollutant  $i$  in tons per year,  $E_i$  was the emission factor for pollutant  $i$  in lbs/bbl,  $P_c$  was the production rate of condensate or oil, and  $C$  was a factor to account for the reduction in emissions due to vapor-emissions controls on some tanks. For this report, the use of vapor-emissions controls on some tanks was estimated to provide a 25% reduction in overall area-wide emissions.

### 3.3 Production Fugitives - Emission Factors and Emission Estimates

Fugitive emissions from production wells vary from well to well depending on many factors, including the tightness of casing heads and fittings, the age and condition of well components, and the numbers of flanges, valves, pneumatic devices, or other components per well. A previous study published by the Gas Research Institute and U.S. EPA investigated fugitive emissions from the natural gas industry, including emissions from production wells, processing plants, transmission pipelines, storage facilities, and distribution lines.<sup>(15)</sup> Fugitive emissions of natural gas from the entire natural gas network were estimated to be 1.4% of gross production. Production fugitives, excluding emissions from condensate tanks (which are covered in another section of this report), were estimated by the GRI/EPA study to be approximately 20% of total fugitives, or 0.28% of gross production.

Production fugitive emissions from Barnett Shale operations in 2007 were estimated as 0.28% of gross natural gas and casinghead gas production of 1098 Bcf/yr. Volume emissions were converted to mass emissions with a density of 0.0483 lb/scf. Multiple Barnett Shale gas producers provided gas composition, heat content data, and area-wide maps of gas composition. The area-wide maps of gas composition were used to estimate gas composition for each producing county. These county-level data were weighted by the fraction of total area production that originated from each county to calculate area-wide emission factors. Table 11 presents the production fugitives emission factors.

**Table 11. Production Fugitives Emission Factors for the Barnett Shale.**

VOC (lbs/MMcf)	HAPs (lbs/MMcf)	CH <sub>4</sub> (lbs/MMcf)	CO <sub>2</sub> (lbs/MMcf)
11	0.26	99	1.9

Emissions were calculated with Equation 3,

$$M_{F,i} = E_i * P_g / 2000 \quad (3)$$

where  $M_{F,i}$  was the mass emission rate of pollutant  $i$  in tons per year,  $E_i$  was the emission factor for pollutant  $i$  in lbs/MMcf, and  $P_g$  was the production rate of natural and casinghead gas. The area-wide unprocessed natural gas composition based on data from gas producers was 74% CH<sub>4</sub>, 8.2% VOC, 1.4% CO<sub>2</sub>, and 0.20% HAPs, on a mass % basis. HAPs in unprocessed natural gas can include low levels of n-hexane, benzene, or other compounds.

#### 3.4 Well Drilling, Hydraulic Fracturing Pump Engines, and Well Completions - Emission Factors and Emission Estimates

Emissions from the diesel engines used to operate well drilling rigs and from the diesel engines that power the hydraulic fracturing pumps were estimated based on discussions with gas producers and other published data. Well drilling engine emissions were based on 25 days of engine operation for a typical well, with 1000 hp of engine capacity, a load factor of 50%, and operation for 12 hours per day. Hydraulic fracturing engine emissions were based on 4.5 days of operation for a typical well, with 1000 hp of capacity, a load factor of 50%, and operation for 12 hours per day. Some well sites in the D-FW are being drilled with electric-powered rigs, with electricity provided off the electrical grid. Engines emission estimates in this report were reduced by 25% to account for the number of wells being drilled without diesel-engine power.

In addition to emissions from drilling and fracing engines, previous studies have examined emissions of natural gas during well completions. These studies include one by the Williams gas company, which estimated that a typical well completion could vent 24,000 Mcf of natural gas.<sup>(18)</sup> A report by the EPA Natural Gas Star program estimated that 3000 Mcf could be produced from typical well completions.<sup>(19)</sup> A report by ENVIRON published in 2006 describes emission factors used in Wyoming and Colorado to estimate emissions from well completions, which were equivalent to 1000 to 5000 Mcf natural gas/well.<sup>(20)</sup> Another report published in the June 2005 issue of the Journal of Petroleum Technology estimated that well completion operations could produce 7,000 Mcf.<sup>(21)</sup> Unless companies bring special equipment to the well site to capture the natural gas and liquids that are produced during well completions, these gases will be vented to the atmosphere or flared.

Discussions with Barnett Shale gas producers that are currently employing "green completion" methods to capture natural gas and reduce emissions during well completions suggests that typical well completions in the Barnett Shale area can release approximately 5000 Mcf of natural gas/well. This value, which is very close to the median value obtained from previous studies (References 18-21), was used to estimate well completion emissions in this report.

The number of completed gas wells reporting to the RRC was plotted for the Feb. 2004 – Feb. 2008 time period.<sup>(22)</sup> A least-squares regression line was fit to the data, and the slope of the line provides the

approximate number of new completions every year. A value of 1042 completions/year was relatively steady throughout the 2004-2008 time period (linear  $R^2 = 0.9915$ ). Emissions in 2007 and 2009 from well completions were estimated using 1000 new well completions/year for each year. Emission estimates were prepared for the entire Barnett Shale area, as well as inside and outside the D-FW metropolitan area. The data from 2004-2008 show that 71 percent of new wells are being installed in the D-FW metropolitan area, 29 percent of new wells are outside the metropolitan area, and the rate of new completions has been steady since 2004. Emissions of VOC, HAPs, CH<sub>4</sub>, and CO<sub>2</sub> were estimated using the same natural gas composition used for production fugitive emissions.

Some gas producers are using green completion techniques to reduce emissions, while others destroy natural gas produced during well completions by flaring. To account for the use of green completions and control by flaring, natural gas emission estimates during well completions were reduced by 25% in this report.

### 3.5 Processing Fugitives - Emission Factors and Emission Estimates

Fugitive emissions from natural gas processing will vary from processing plant to processing plant, depending on the age of the plants, whether they are subject to federal rules such as the NSPS Subpart KKK requirements, the chemical composition of the gas being processed, the processing capacity of the plants, and other factors. A previous study published by the Gas Research Institute and U.S. EPA investigated fugitive emissions from the natural gas industry, including emissions from production wells, processing plants, transmission pipelines, storage facilities, and distribution lines.<sup>(15)</sup> Fugitive emissions of natural gas from the entire natural gas industry were estimated to be 1.4% of gross production. Processing fugitives, excluding compressor engine exhaust emissions that were previously addressed in this report, were estimated to be approximately 9.7% of total fugitives, or 0.14% of gross production.

Processing fugitive emissions from Barnett Shale operations in 2007 were estimated as 0.14% of the portion of gas production that is processed, estimated as 519 Bcf/yr. Emission factors for VOC, HAPs, CH<sub>4</sub>, and CO<sub>2</sub> were estimated with an area-wide natural gas composition, excluding the gas from areas of the Barnett Shale that does not require any processing. Volume emissions were converted to mass emissions with a natural gas density of 0.0514 lb/scf. Table 12 presents the processing fugitives emission factors.

**Table 12. Processing Fugitives Emission Factors for the Barnett Shale.**

VOC (lbs/MMcf)	HAPs (lbs/MMcf)	CH <sub>4</sub> (lbs/MMcf)	CO <sub>2</sub> (lbs/MMcf)
14	0.3	45	1.0

Processing fugitive emissions were calculated with Equation 4,

$$M_{p,i} = E_i * P_g / 2000 \quad (4)$$

where  $M_{p,i}$  was the mass emission rate of pollutant  $i$  in tons per year,  $E_i$  was the emission factor for pollutant  $i$  in lbs/MMcf, and  $P_g$  was the production rate of natural and casinghead gas. The composition of the natural gas produced in the Barnett Shale that is processed was estimated to be 65% CH<sub>4</sub>, 1.5% CO<sub>2</sub>, 20% VOC, and 0.48% HAPs, on a mass % basis. Not all natural gas from the Barnett Shale area requires processing.

### 3.6 Transmission Fugitives - Emission Factors and Emission Estimates

Fugitive emissions from the transmission of natural gas will vary depending on the pressure of pipelines, the integrity of the piping, fittings, and valves, the chemical composition of the gas being transported, the tightness of compressor seals and rod packing, the frequency of blow down events, and other factors. A previous study published by the Gas Research Institute and U.S. EPA investigated fugitive emissions from the natural gas industry, including emissions from production wells, processing plants, transmission pipelines, storage facilities, and distribution lines.<sup>(15)</sup> Fugitive emissions of natural gas from the entire natural gas industry were estimated to be 1.4% of gross production. Transmission fugitives, excluding compressor engine exhaust emissions that were previously addressed in this report, were estimated to be approximately 35% of total fugitive emissions, or 0.49% of gross production. Transmission includes the movement of natural gas from the wells to processing plants, and the processing plants to compressor stations. It does not include flow past the primary metering and pressure regulating (M&PR) stations and final distribution lines to customers. Final distribution of gas produced in the Barnett Shale can happen anywhere in the North American natural gas distribution system, and fugitive emissions from these lines are beyond the scope of this report.

Transmission fugitive emissions from Barnett Shale operations in 2007 were estimated as 0.49% of gross natural gas and casinghead gas production of 1098 Bcf/yr. Emission factors for VOC, HAPs, CH<sub>4</sub>, and CO<sub>2</sub> were developed considering that a significant portion of the gas moving through the network does not require processing, while the portion of the gas with higher molecular weight compounds will go through processing. In addition, all gas will have a dry (high methane) composition after processing as it moves to compressor stations and then on to customers. Overall area-wide transmission fugitive emissions were calculated with a gas composition of 76% CH<sub>4</sub>, 5.1% VOC, 1.4% CO<sub>2</sub>, and 0.12% HAPs, by mass %. Table 13 presents the transmission fugitives emission factors.

Table 13. Transmission Fugitives Emission Factors for the Barnett Shale.

VOC (lbs/MMcf)	HAPs (lbs/MMcf)	CH <sub>4</sub> (lbs/MMcf)	CO <sub>2</sub> (lbs/MMcf)
12	0.28	175	3.3

Transmission fugitive emissions were calculated with Equation 5,

$$M_{tr,i} = E_i * P_g / 2000 \quad (5)$$

where  $M_{tr,i}$  was the mass emission rate of pollutant  $i$  in tons per year,  $E_i$  was the emission factor for pollutant  $i$  in lbs/MMcf, and  $P_g$  was the production rate of natural and casinghead gas.

## 4.0 RESULTS

### 4.1 Point Sources

#### i. Compressor Engine Exhausts

Emissions from compressor engines in the Barnett Shale area are summarized in Tables 14 and 15. Results indicate that engines are significant sources of ozone and particulate matter precursors (NO<sub>x</sub> and VOC), with 2007 emissions of 66 tpd. Emissions of NO<sub>x</sub> are expected to fall 50% from 32 to 16 tpd for engines in the Dallas-Fort Worth metropolitan area because of regulations scheduled to take effect in 2009 and the installation of NSCR units on many engines. Large reductions are unlikely because of the growth in natural gas production. For engines outside the D-FW metropolitan area counties, NO<sub>x</sub> emissions will rise from 19 tpd to 30 tpd because of the projected growth in natural gas production and the fact that engines in these counties are not subject to the same regulations as those inside the metropolitan area.

Emissions of volatile organic compounds are expected to increase from 15 to 21 tpd from 2007 to 2009, because of increasing natural gas production. The 2009 engine regulations for the metropolitan area counties do have the effect of reducing VOC emissions from some engines, but growth in production compensates for the reductions and VOC emissions from engines as a whole increase.

HAP emissions, which include toxic compounds such as formaldehyde and benzene, are expected to increase from 2.7 to 3.6 tpd from 2007 to 2009.

Greenhouse gas emissions from compressor engines are shown in Table 15. Emissions in 2007 as carbon dioxide equivalent tons were approximately 8900 tpd, and emissions are estimated to increase to nearly 14,000 tpd by 2009. Carbon dioxide contributed the most to the greenhouse gas emissions, accounting for approximately 90% of the CO<sub>2</sub> equivalent tons. The methane contribution to greenhouse gases was smaller for the engine exhausts than for the other sources reviewed in this report.

**Table 14. Emissions from Compressor Engine Exhausts.**

	2007 Pollutant (tpd)					2009 Pollutant (tpd)				
	NOx	VOC	HAPs	CH4	CO2e	NOx	VOC	HAPs	CH4	CO2e
D-FW Metro Engines	32	13	2.2	35	7261	16	16	2.9	49	11294
Outside Metro Engines	19	2.5	0.45	7.4	1649	30	3.8	0.70	12	2583
<b>Engines Total</b>	<b>51</b>	<b>15</b>	<b>2.7</b>	<b>43</b>	<b>8910</b>	<b>46</b>	<b>19</b>	<b>3.6</b>	<b>61</b>	<b>13877</b>

**Table 15. Greenhouse Gas Emissions Details.**

	2007 Pollutant (tpd)				2009 Pollutant (tpd)			
	CO2	CH4	N2O	CO2e	CO2	CH4	N2O	CO2e
D-FW Metro Engines	6455	35	0.20	7261	10112	49	0.28	11294
Outside Metro Engines	1475	7.4	0.062	1649	2310	12	0.10	2583
<b>Engines Total</b>	<b>7930</b>	<b>43</b>	<b>0.26</b>	<b>8910</b>	<b>12422</b>	<b>61</b>	<b>0.38</b>	<b>13877</b>

## ii. Oil and Condensate Tanks

Emissions from condensate and oil tanks are shown in Tables 16-1 and 16-2. Annual average emissions are shown in Table 16-1, and peak summer emissions are shown in Table 16-2.

On an annual average, emissions of VOCs from the tanks were 19 tpd in 2007, and emissions will increase to 30 tpd in 2009. Because of the effects of temperature on hydrocarbon liquid vapor pressures, peak summer emissions of VOC were 93 tpd in 2007, and summer emissions will increase to 146 tpd in 2009.

Substantial HAP emissions during the summer were determined for the tanks, with 2007 emissions of 7.2 tpd and 2009 emissions of 11 tpd. Greenhouse gas emissions from the tanks are almost entirely from CH<sub>4</sub>, with a small contribution from CO<sub>2</sub>. Annual average greenhouse gas emissions were 95 tpd in 2007, and will increase to 149 tpd in 2009.

**Table 16. Emissions from Condensate and Oil Tanks.**

Table 16-1. Annual Average Tank Emissions

	2007				2009			
	VOC	Pollutant (tpd)			VOC	Pollutant (tpd)		
		HAPs	CH <sub>4</sub>	CO <sub>2</sub> e		HAPs	CH <sub>4</sub>	CO <sub>2</sub> e
D-FW Metro Tanks	8.9	0.18	2.1	44	14	0.28	3.2	69
Outside Metro Tanks	10	0.21	2.4	51	16	0.32	3.8	80
<b>Tanks Total</b>	<b>19</b>	<b>0.39</b>	<b>4.5</b>	<b>95</b>	<b>30</b>	<b>0.60</b>	<b>7.0</b>	<b>149</b>

Table 16-2. Peak Summer Tank Emissions

	2007				2009			
	VOC	Pollutant (tpd)			VOC	Pollutant (tpd)		
		HAPs	CH <sub>4</sub>	CO <sub>2</sub> e		HAPs	CH <sub>4</sub>	CO <sub>2</sub> e
D-FW Metro Tanks	43	3.3	6.7	142	67	5.2	10	222
Outside Metro Tanks	50	3.8	7.8	166	79	6.0	12	261
<b>Tanks Total</b>	<b>93</b>	<b>7.2</b>	<b>15</b>	<b>308</b>	<b>146</b>	<b>11</b>	<b>23</b>	<b>483</b>

## 4.2 Fugitive and Intermittent Sources

### i. Production Fugitives

Emissions from fugitive sources at Barnett Shale production sites are shown in Table 17. Production fugitives are significant sources of VOC emissions, with VOC emissions expected to grow from 2007 to 2009 from 17 to 26 tpd. Production fugitives are also very large sources of methane emissions, leading to large CO<sub>2</sub> equivalent greenhouse gas emissions. Greenhouse gas emissions were 3100 tpd in 2007 and will be 4900 tpd in 2009.

**Table 17. Emissions from Production Fugitives.**

	2007				2009			
	VOC	Pollutant (tpd)			VOC	Pollutant (tpd)		
		HAPs	CH <sub>4</sub>	CO <sub>2</sub> e		HAPs	CH <sub>4</sub>	CO <sub>2</sub> e
D-FW Metro Production Fugitives	11	0.27	102	2147	18	0.43	160	3363
Outside Metro Production Fugitives	5.2	0.12	46	971	8.1	0.19	72	1521
<b>Production Fugitives Total</b>	<b>17</b>	<b>0.40</b>	<b>148</b>	<b>3118</b>	<b>26</b>	<b>0.62</b>	<b>232</b>	<b>4884</b>

## ii. Well Drilling, Hydraulic Fracturing, and Well Completions

Emissions from well drilling engines, hydraulic fracturing pump engines, and well completions are shown in Table 18. These activities are significant sources of the ozone and fine particulate precursors, as well as very large sources of greenhouse gases, mostly from methane venting during well completions. Greenhouse gas emissions are estimated to be greater than 4000 CO<sub>2</sub> equivalent tons per year. Based on 2000-2007 drilling trends, approximately 71% of the well drilling, fracing, and completion emissions will be coming from counties in the D-FW metropolitan area, with the remaining 29% coming from counties outside the metropolitan area.

**Table 18. Emissions from Well Drilling, Hydraulic Fracturing, and Well Completions.**

	2007 Pollutant (tpd)					2009 Pollutant (tpd)				
	NOx	VOC	HAPs	CH <sub>4</sub>	CO <sub>2</sub> e	NOx	VOC	HAPs	CH <sub>4</sub>	CO <sub>2</sub> e
D-FW Metro Well Drilling and Well Completion	3.9	15	0.35	130	2883	3.9	15	0.35	130	2883
Outside Metro Well Drilling and Well Completions	1.6	6.1	0.14	53	1178	1.6	6.1	0.14	53	1178
<b>Well Drilling and Completions Emissions Total</b>	<b>5.5</b>	<b>21</b>	<b>0.49</b>	<b>183</b>	<b>4061</b>	<b>5.5</b>	<b>21</b>	<b>0.49</b>	<b>183</b>	<b>4061</b>

## iii. Natural Gas Processing

Processing of Barnett Shale natural gas results in significant emissions of VOC and greenhouse gases, which are summarized in Table 19. Emissions of VOC were 10 tpd in 2007 and are expected to increase to 15 tpd by 2009. Greenhouse gas emissions, largely resulting from fugitive releases of methane, were approximately 670 tpd in 2007 and will be approximately 1100 tpd in 2009.

**Table 19. Emissions from Natural Gas Processing.**

	2007 Pollutant (tpd)				2009 Pollutant (tpd)			
	VOC	HAPs	CH <sub>4</sub>	CO <sub>2</sub> e	VOC	HAPs	CH <sub>4</sub>	CO <sub>2</sub> e
D-FW Metro Processing Fugitives	6.7	0.16	22	464	10	0.26	35	727
Outside Metro Processing Fugitives	3.0	0.07	10	210	4.7	0.12	16	329
<b>Processing Fugitives Total</b>	<b>10</b>	<b>0.24</b>	<b>32</b>	<b>674</b>	<b>15</b>	<b>0.37</b>	<b>50</b>	<b>1056</b>

## iv. Transmission Fugitives

Transmission of Barnett Shale natural gas results in significant emissions of greenhouse gases and VOC. Greenhouse gas emissions from transmission fugitives are larger than from any other source category except compressor engine exhausts. Emissions of VOC in 2007 from transmission were approximately 18 tpd in 2007 and are estimated to be 28 tpd in 2009. Greenhouse gas emissions from methane fugitives result in emissions of approximately 5500 tpd in 2007 and 8600 tpd in 2009. Emissions are summarized in Table 20.

**Table 20. Emissions from Natural Gas Transmission Fugitives.**

	2007 Pollutant (tpd)				2009 Pollutant (tpd)			
	VOC	HAPs	CH <sub>4</sub>	CO <sub>2</sub> e	VOC	HAPs	CH <sub>4</sub>	CO <sub>2</sub> e
D-FW Metro Transmission Fugitives	12	0.29	181	3799	19	0.46	283	5952
Outside Metro Transmission Fugitives	5.5	0.13	82	1718	8.6	0.21	128	2691
<b>Transmission Fugitives Total</b>	<b>18</b>	<b>0.43</b>	<b>262</b>	<b>5517</b>	<b>28</b>	<b>0.67</b>	<b>411</b>	<b>8643</b>

### 4.3 All Sources Emission Summary

Emissions from all source categories in the Barnett Shale area are summarized in Table 21-1 on an annual average basis, and are summarized in Table 12-2 on a peak summer basis. Annual average emissions for 2009 of ozone and particulate precursors (NO<sub>x</sub> and VOC) were approximately 191 tpd, and peak summer emissions of these compounds were 307 tpd. The portion of those emissions originating from the 5-counties in the D-FW metropolitan area with significant oil and gas production was 133 tpd during the summer (Tarrant, Denton, Parker, Johnson, and Ellis).

Estimates of greenhouse gas emissions from the sector as a whole were quite large, with 2009 emissions of approximately 33,000 tpd. The greenhouse gas contribution from compressor engines was dominated by carbon dioxide, while the greenhouse gas contribution from all other sources was dominated by methane. Emissions of HAPs were significant from Barnett Shale activities, with emissions in 2009 of 6.4 tpd in 2009 on an annual average, and peak summer emissions of 17 tpd.

**Table 21. Emissions Summary for All Source Categories.**

Table 21-1. Annual Average Emissions from All Sources.

	2007 Pollutant (tpd)					2009 Pollutant (tpd)				
	NOx	VOC	HAPs	CH4	CO2e	NOx	VOC	HAPs	CH4	CO2e
Compressor Engine Exhausts	51	15	2.7	43	8910	46	19	3.6	61	13877
Condensate and Oil Tanks	0	19	0.39	4.5	95	0	30	0.60	7.0	149
Production Fugitives	0	17	0.40	148	3118	0	26	0.62	232	4884
Well Drilling and Completions	5.5	21	0.49	183	4061	5.5	21	0.49	183	4061
Gas Processing	0	10	0.24	32	674	0	15	0.37	50	1056
Transmission Fugitives	0	18	0.43	262	5517	0	28	0.67	411	8643
<b>Total Daily Emissions (tpd)</b>	<b>56</b>	<b>100</b>	<b>4.6</b>	<b>673</b>	<b>22375</b>	<b>51</b>	<b>139</b>	<b>6.4</b>	<b>945</b>	<b>32670</b>

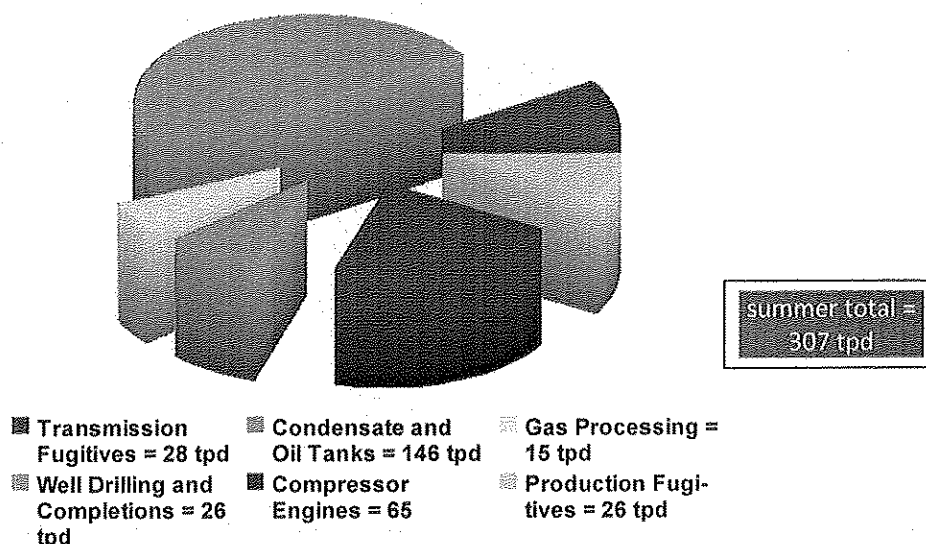
Table 21-2. Peak Summer Emissions from All Sources.

	2007 Pollutant (tpd)					2009 Pollutant (tpd)				
	NOx	VOC	HAPs	CH4	CO2e	NOx	VOC	HAPs	CH4	CO2e
Compressor Engine Exhausts	51	15	2.7	43	8910	46	19	3.6	61	13877
Condensate and Oil Tanks	0	93	7.2	15	308	0	146	11	23	483
Production Fugitives	0	17	0.40	148	3118	0	26	0.62	232	4884
Well Drilling and Completions	5.5	21	0.49	183	4061	5.5	21	0.49	183	4061
Gas Processing	0	10	0.24	32	674	0	15	0.37	50	1056
Transmission Fugitives	0	18	0.43	262	5517	0	28	0.67	411	8643
<b>Total Daily Emissions (tpd)</b>	<b>56</b>	<b>174</b>	<b>11</b>	<b>683</b>	<b>22588</b>	<b>51</b>	<b>255</b>	<b>17</b>	<b>961</b>	<b>33004</b>

Emissions of nitrogen oxides from oil and gas production in the Barnett Shale were dominated by emissions from compressor engines, with a smaller contribution from well drilling and fracing pump engines. All source categories in the Barnett Shale contributed to VOC emissions, but the largest group of VOC sources was condensate tank vents. Figure 6 presents the combined emissions of NO<sub>x</sub> and VOC during the summer from all source categories in the Barnett Shale.



**Figure 6. Summer Emissions of Ozone & Fine Particulate Matter Precursors (NO<sub>x</sub> and VOC) from Barnett Shale Sources in 2009.**



#### 4.4 Perspective on the Scale of Barnett Shale Air Emissions

Barnett Shale oil and gas production activities are significant sources of air emissions in the north-central Texas area. To help put the levels of Barnett Shale emissions into context, recent government emissions inventories for the area were reviewed, and emission rates of smog precursor emissions were examined.

The Dallas-Fort Worth area is home to two large airports, Dallas Love Field and Dallas-Fort Worth International Airport, plus a number of smaller airports. A recent emissions inventory has estimated 2009 NO<sub>x</sub> emissions from all area airports to be approximately 14 tpd, with VOC emissions at approximately 2.6 tpd, resulting in total ozone and particulate matter precursor emissions of approximately 16 tpd.<sup>(22-24)</sup> For comparison, emissions of VOC + NO<sub>x</sub> in summer 2009 from just the compressor engines in the Barnett Shale area will be approximately 65 tpd, and summer condensate tanks emissions will be approximately 146 tpd. In 2009, even after regulatory efforts to reduce NO<sub>x</sub> emissions from certain compressor engine types, Barnett Shale oil and gas emissions will be many times the airports' emissions.

Recent state inventories have also compiled emissions from on-road mobile sources like cars, trucks, etc., in the 9-county D-FW metropolitan area.<sup>(25)</sup> By 2009, NO<sub>x</sub> + VOC emissions from mobile sources in the 9-county area were estimated by the TCEQ to be approximately 273 tpd. The portion of on-road motor vehicle emissions from the 5-counties in the D-FW metropolitan area with significant oil and gas production was 121 tpd (Denton, Tarrant, Parker, Johnson, and Ellis). As indicated earlier, summer oil and gas emissions in the 5-counties of the D-FW metropolitan area with significant oil and gas production was estimated to be 165 tpd, indicating that the oil and gas sector likely has greater emissions than motor vehicles in these counties (165 vs. 121 tpd).

Emissions of NO<sub>x</sub> and VOC in the summer of 2009 from all oil and gas sources in the Barnett Shale 21-county area will exceed emissions from on-road mobile sources in the D-FW metropolitan area by more than 30 tpd (307 vs. 273 tpd).

Figure 7 summarizes summer Barnett Shale-related emissions, plus TCEQ emission estimates from the airports and on-road mobile sources. Figure 8 presents annual average emissions from these sources.

**Figure 7. Barnett Shale Activity, D-FW Area Airports, & Mobile Sources (Summer 2009 Emissions).**

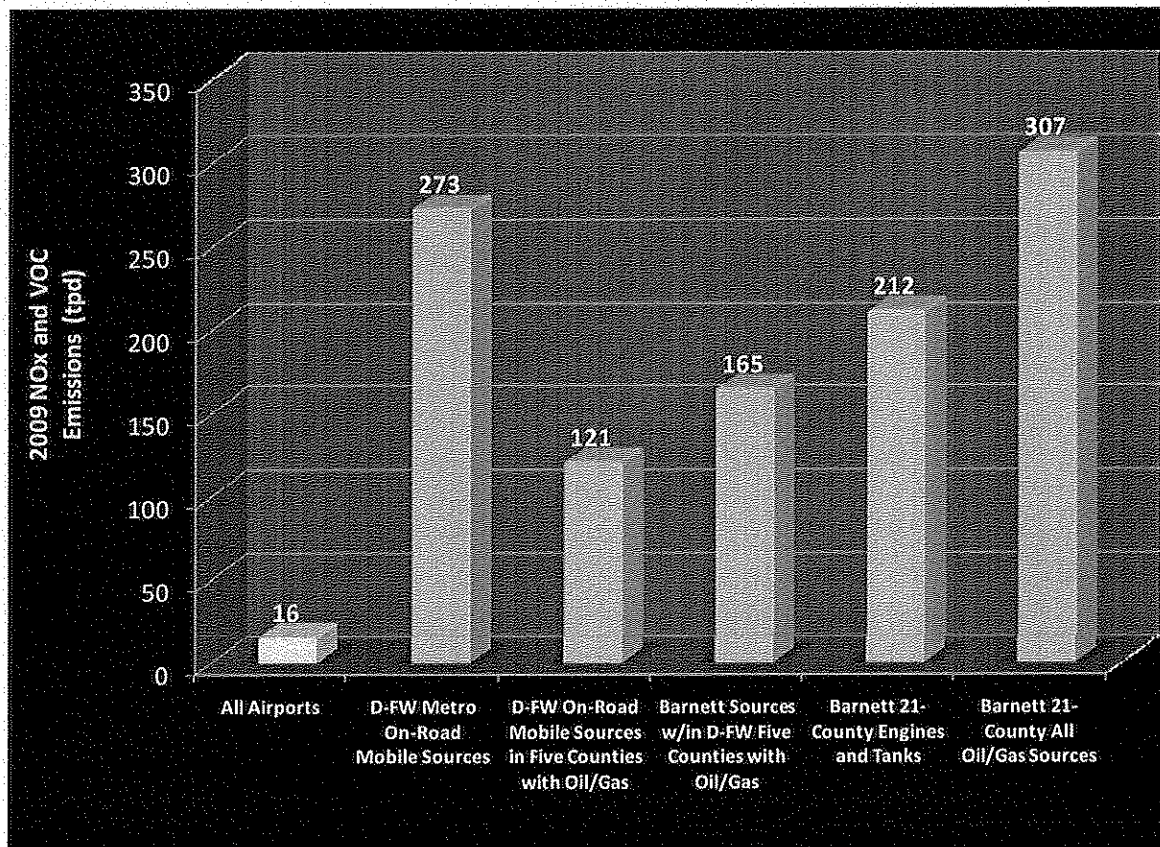
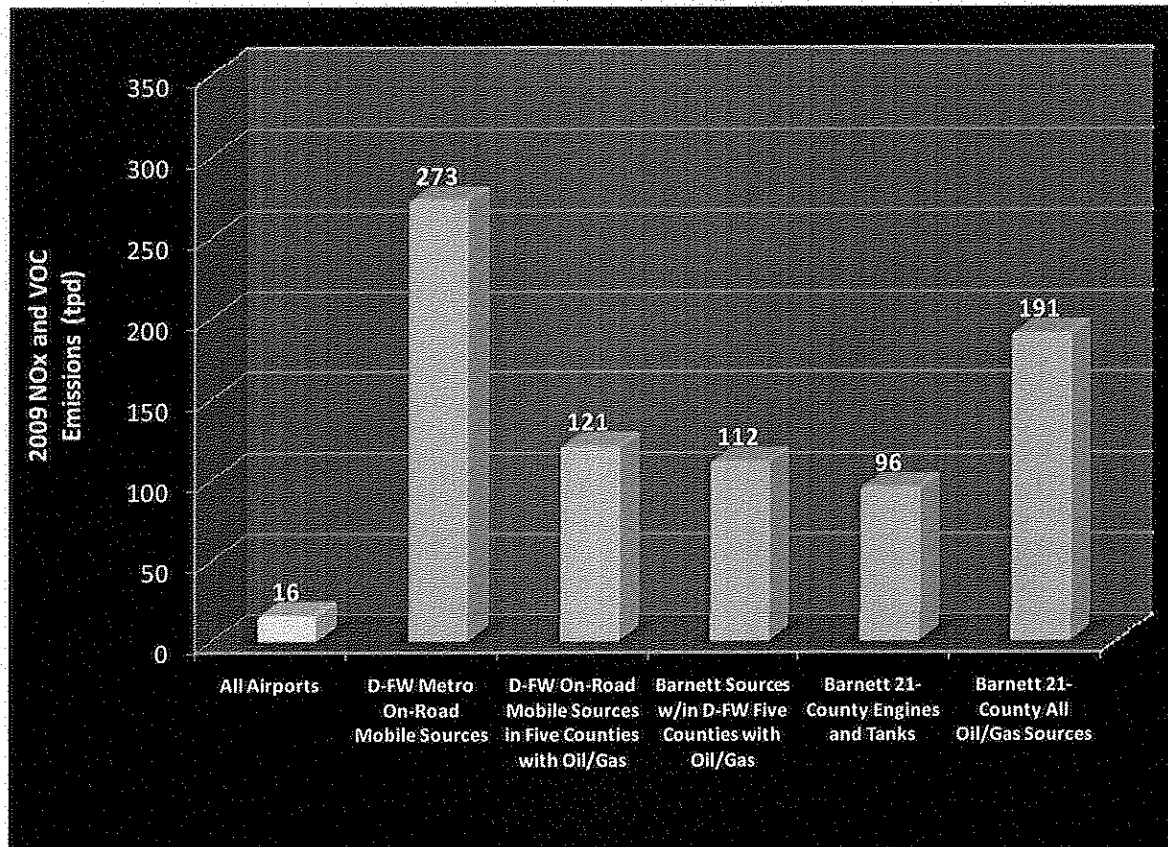


Figure 8. Barnett Shale Activity, D-FW Area Airports, & Mobile Sources (Annual Average 2009 Emissions).



## 5.0 EMISSIONS REDUCTION OPPORTUNITIES

The previous sections of this report have estimated the emission rates of ozone and particulate matter precursor compounds, air toxic compounds, and greenhouse gases from different oil and gas sources in the Barnett Shale area. For several of these source categories, off-the-shelf options are available which could significantly reduce emissions, resulting in important air quality benefits. Some of these emissions reductions would also result in increased production of natural gas and condensate, providing an economic payback for efforts to reduce emissions.

### 5.1 Compressor Engine Exhausts

Compressors in oil and gas service in the Barnett Shale perform vital roles, to either help get oil and gas out of the shale, to increase pressures of gas at the surface, and to provide the power for the large interstate pipeline systems that move high volumes of gas from production to processing and to customers. At present, most of the work to operate the compressors comes from natural gas-fired internal combustion engines, and these engines can be significant sources of emissions.

New TCEQ rules are scheduled to become effective in early 2009 and they will reduce NO<sub>x</sub>, VOC, and other emissions from a subset of the engines in the Barnett Shale – those that are currently in the D-FW metropolitan area that had typically not reported into the Texas point source emissions inventory for major sources. These rules are a good first step in addressing emissions from these sources, which had previously gone unnoticed in state emission inventory and regulatory efforts.

However, engines outside the D-FW metropolitan area are not subject to the rule. And even within the metropolitan area, the rule will not have the effect of greatly reducing emissions in 2009 compared to 2007 levels, since growth in oil and gas production (and the new engines that are going to be required to power the growth) will begin to overtake the benefits that come from reducing emissions from the pre-2009 fleet (see Table 14).

Two available options for reducing emissions from engines in the Barnett Shale area are: (1) extending the TCEQ 2009 engine regulation to all engines in the Barnett Shale, and (2) replacing internal combustion engines with electric motors as the sources of compression power.

#### *i. Extending the 2009 Engine Rule to Counties Outside the D-FW Metropolitan Area*

Regulations adopted by TCEQ for the D-FW metropolitan area and scheduled to take effect in early 2009 will limit NO<sub>x</sub> emissions from engines larger than 50 horsepower.<sup>(7)</sup> Rich burn engines will be restricted to 0.5 g/hp-hr, lean burn engines installed or moved before June 2007 will be restricted to 0.7 g/hp-hr, and lean burn engines installed or moved after June 2007 will be limited to 0.5 g/hp-hr. Applying these rules to engines outside the metropolitan area would reduce 2009 NO<sub>x</sub> emissions from a large number of engines, in particular, rich burn engines between 50 to 500 hp. Emissions of NO<sub>x</sub> in 2009 from the engines outside the metropolitan area would drop by approximately 6.5 tpd by extending the D-FW engine rule, an amount greater than mobile source emissions in all of Johnson County (4 tpd), or more than 50% of the emissions from Dallas-Fort Worth International Airport (12.6 tpd).

Extending the D-FW engine rule to counties outside the metropolitan area would likely result in many engine operators installing NSCR systems on rich burn engine exhausts. These systems would not only reduce emissions of NO<sub>x</sub>, but they would also be expected to reduce emissions of VOC, the other ozone and particulate matter precursor, by approximately 75% or greater.<sup>(26a)</sup> Additional co-benefits of NSCR installations would include lower emissions of organic HAP compounds like benzene and formaldehyde, lower emissions of methane, and lower emissions of carbon monoxide. The level of HAP, methane, and

carbon monoxide control would also be expected to be 75% or greater with typical NSCR installations.<sup>(26a)</sup>

Analyses of NSCR installations and operating costs by numerous agencies have indicated that the technology is very cost effective. For example, the Illinois Environmental Protection Agency estimated in 2007 that NSCR could control NO<sub>x</sub> from 500 hp engines at approximately \$330/ton.<sup>(26b)</sup> The U.S. EPA in 2006 estimated that NSCR could control NO<sub>x</sub> from 500 hp engines at approximately \$92 to 105/ton.<sup>(27)</sup> A 2005 report examining emissions reductions from compressor engines in northeast Texas estimated NO<sub>x</sub> cost effectiveness for NSCR at \$112-183/ton and identified VOC reductions as an important co-benefit.<sup>(28)</sup> These costs are well under the cost effectiveness values of \$10,000 to \$20,000 per ton often used as upper limits in PM<sub>2.5</sub>, ozone, and regional haze (visibility) regulatory programs. The simultaneous HAPs and methane removal that would occur with NSCR use provide further justification for extending the D-FW engine rule to counties outside the metropolitan area.

#### *ii. Electric Motors Instead of Combustion Engines for Compressor Power*

When considering NO<sub>x</sub>, VOC, HAPs, and greenhouse gas emissions from compressor engines, it is important to understand that the work to move the gas in the pipelines is performed by the compressors, which by themselves produce no direct combustion emissions. The emissions come from the exhaust of the internal combustion engines, which are fueled with a small amount of the available natural gas. These engines provide the mechanical power to run the compressors. The 2007 TCEQ engine survey and the most recent point source emissions inventory indicate that installed compressor engine capacity throughout the Barnett Shale was approximately 1,400,000 hp in 2007, and capacity is likely to increase to over 2,100,000 hp by 2009.

As an alternative to operating the compressors in the Barnett Shale with millions of hp of natural gas burning-engines, the compressors could be operated with electrically-driven motors. The electrification of the wellhead and compressor station engine fleet in the Barnett Shale area has the potential to deliver significant reductions in emissions in North Central Texas. The use of electric motors instead of internal combustion engines to drive natural gas compressors is not new to the natural gas industry, and numerous compressors driven by electric motors are operational throughout Texas. Unfortunately, current regulations have not yet required their use in the Barnett Shale.

A few of the many examples of electrically-driven natural gas compressors, positive technical assessments, and industrial experience with their use in Texas and throughout the U.S., include:

- The Interstate Natural Gas Association of America: "One advantage of electric motors is they need no air emission permit since no hydrocarbons are burned as fuel. However, a highly reliable source of electric power must be available, and near the station, for such units to be considered for an application."<sup>(29)</sup>
- The Williams natural gas company: "The gas turbine and reciprocating engines typically use natural gas from the pipeline, where the electric motor uses power from an electric transmission line. Selection of this piece of equipment is based on air quality, available power, and the type of compressor selected. Typically electric motors are used when air quality is an issue."<sup>(30)</sup>
- JARSCO Engineering Corp.: "The gas transmission industry needs to upgrade equipment for more capacity. The new high-speed electric motor technology provides means for upgrading, at a fraction of the life cycle costs of conventional gas powered equipment."<sup>(31)</sup>
- Pipeline and Gas Journal, June 2007: "Important factors in favor of electric-driven compressor stations that should be considered in the feasibility analysis include the fact that the fuel gas for

gas turbine compressor stations will be transformed into capacity increase for the electrically-driven compressor station, and will therefore add revenue to this alternative..."<sup>(32)</sup>

- Prime mover example: Installations in 2007 at Kinder Morgan stations in Colorado of +10,000 hp electric-driven compressor units.<sup>(33)</sup>
- Wellhead example: Installations in Texas of wellhead capacity (5 to 400 hp) electrically-driven compressors.<sup>(34,35)</sup>
- Mechanical Engineering Magazine, December 1996: "Gas pipeline companies historically have used gas-fired internal-combustion engines and gas turbines to drive their compressors. However, this equipment emits nitrogen oxides....According to the Electric Power Research Institute, it is more efficient to send natural gas to a combined-cycle power plant to generate electricity transmitted back to the pipeline compressor station than to burn the natural gas directly in gas-fired compressor engines."<sup>(36)</sup>
- The Dresser-Rand Corporation: "New DATUM-C electric motor-driven compressor provides quiet, emissions free solution for natural gas pipeline applications – An idea whose time had come."<sup>(37)</sup>
- Occidental Oil and Gas Corporation: "Converting Gas-Fired Wellhead IC Engines to Electric Motor Drives: Savings \$23,400/yr/unit."<sup>(38)</sup>

The use of an electric motor instead of a gas-fired engine to drive gas compression eliminates combustion emissions from the wellhead or compressor station. Electric motors do require electricity from the grid, and in so far as electricity produced by power plants that emits pollutants, the use of electric motors is not completely emissions free. However, electric motor use does have important environmental benefits compared to using gas-fired engines.

Modern gas-fired internal-combustion engines have mechanical efficiencies in the 30-35% range, values that have been relatively static for decades. It is doubtful that dramatic increases in efficiency (for example, to 80 or 90%) are possible anytime in the near future. This means that carbon dioxide emissions from natural gas-fired engines at wellheads and compressor stations are not likely to drop substantially because of efficiency improvements. In addition, the scrubbing technology that is used in some large industrial applications to separate CO<sub>2</sub> from other gases also is unlikely to find rapid rollout to the thousands of comparatively-smaller exhaust stacks at natural gas wellheads and compressor stations. The two facts combined suggest that the greenhouse gas impacts from using internal combustion engines to drive compressors are likely to be a fixed function of compression demand, with little opportunity for large future improvements.

In contrast, the generators of grid electric power are under increasing pressure to lower greenhouse gas emissions. Wind energy production is increasing in Texas and other areas. Solar and nuclear power projects are receiving renewed interest from investors and regulators. As the electricity in the grid is produced by sources with lower carbon dioxide emissions, so then the use of electric motors to drive natural gas pipelines becomes more and more climate friendly.

Stated another way, carbon dioxide emissions from gas-fired engines are unlikely to undergo rapid decreases in coming years, whereas the electricity for operating electric motors is at a likely carbon-maximum right now. Electric-powered compression has a long-term potential for decreased climate impact, as non-fossil fuel alternatives for grid electricity generation expand in the future.

Costs: Estimates were made of the costs were switching from IC engines to electric motors for compression. Costs at sites in the Barnett Shale are highly time and site specific, depending on the cost of electricity and the value of natural gas, the numbers of hours of operation per year, the number and sizes of compressors operated, and other factors.

For this report, sample values were determined for capital, operating and maintenance, and operating costs of 500 hp of either IC engine capacity or electric motor capacity for a gas compressor to operate for 8000 hours per year at a 0.55 load factor. Electric power costs were based on \$8/month/kW demand charge, \$0.08/kWh electricity cost, and 95% motor mechanical efficiency. Natural gas fuel costs were based on \$7.26/MMBtu wellhead natural gas price and a BSFC of 0.0085 MMBtu/hp-hr.

With these inputs, the wellhead value of the natural gas needed to operate a 500 hp compressor with an IC engine for 1 year is approximately \$136,000. This is lower than the costs for electricity to run a comparable electric motor, which would be approximately \$174,000. In addition to these energy costs, it is important to also consider operating and maintenance (O&M) and capital costs. With an IC engine O&M cost factor of \$0.016/hp in 2009 dollars, O&M costs would be approximately \$35,000. With an electric motor O&M cost factor of \$0.0036/kWh in 2009 dollars, O&M costs would be approximately \$6200, providing a savings of nearly \$30,000 per year in O&M costs for electrical compression, nearly enough to compensate for the additional energy cost incurred from the additional price premium on electricity in Texas compared to natural gas.

With an IC engine capital cost factor of \$750/hp in 2009 dollars, the cost of a 500 hp compressor engine would be approximately \$370,000. With an electric motor cost factor of \$700/kW, the cost of 500 hp of electrically-powered compression would be approximately \$260,000.

The combined energy (electricity or natural gas), O&M, and capital costs for the two options are shown in Table 22, assuming a straight 5-year amortization of capital costs. The data show that there is little cost difference in this example, with a slight cost benefit of around \$12,000/year for generating the compression power with an electric motor instead of an IC engine. While this estimate would vary from site to site within the Barnett Shale, there appears to be cost savings, driven mostly by reduced initial capital cost, in favor of electrical compression in the Barnett Shale. In addition to the potential cost savings of electrical compression over engine compression, the lack of an overwhelming economic driver one way or the other allows the environmental benefits of electric motors over combustion engines to be the deciding factor on how to provide compression power in the area.

**Table 22. Costs of IC Engine and Electric Motor Compression  
[example of 500 hp installed capacity].**

	IC Engine (\$/year)	Electric Motor (\$/year)
energy (NG or electricity)	136,000	174,000
O&M	35,000	6,200
capital	74,000	52,000
<b>Total</b>	<b>245,000</b>	<b>232,000</b>

## 5.2 Oil and Condensate Tanks

Oil and condensate tanks in the Barnett Shale are significant sources of multiple air pollutants, especially VOC, HAPs, and methane. Multiple options exist for reducing emissions from oil and condensate tanks, including options that can result in increased production and revenue for well operators.<sup>(14)</sup> This section will discuss two of these options: flares and vapor recovery units.

### *i. Vapor Recovery Units*

Vapor recovery units (VRU) can be highly effective systems for capturing and separating vapors and gases produced by oil and condensate tanks. Gases and vapors from the tanks are directed to the inlet side of a compressor, which increases the pressure of the mixture to the point that many of the moderate and higher molecular weight compounds recondense back into liquid form. The methane and other light gases are directed to the inlet (suction) side of the well site production compressors to join the main flow of natural gas being produced at the well. In this way, VRU use increases the total production of gas at the well, leading to an increase in gas available for metering and revenue production. In addition, liquids produced by the VRU are directed back into the liquid phase in the condensate tank, increasing condensate production and the income potential from this revenue stream. Vapor recovery units are estimated to have control efficiencies of greater than 98%.<sup>(14)</sup>

The gases and vapors emitted by oil and condensate tanks are significant sources of air pollutants, and the escape of these compounds into the atmosphere also reduces income from hydrocarbon production. With a wellhead value of approximately \$7/MMBtu, the 7 tpd of methane that is estimated to be emitted in 2009 from condensate tanks in the Barnett Shale have a value of over \$800,000 per year. Even more significantly, a price of condensate at \$100/bbl makes the 30 tpd of VOC emissions in 2009 from the tanks in the Barnett Shale potentially worth over \$10 million per year.

While flaring emissions from tanks in the Barnett Shale would provide substantial environmental benefits, especially in terms of VOC and methane emissions, capturing these hydrocarbons and directing them into the natural gas and condensate distribution systems would provide both an environmental benefit and a very large potential revenue stream to oil and gas producers.

### *ii. Enclosed Flares*

Enclosed flares are common pollution control and flammable gas destruction devices. Enclosed flares get their name because the flame used to ignite the gases is generated by burner tips installed within the stack well below the top. The flames from enclosed flares are usually not visible from the outside, except during upset conditions, making them less objectionable to the surrounding community compared to open (unenclosed) flares.

Using a flare to control emissions from tanks involves connecting the vents of a tank or tank battery to the bottom of the flare stack. The vapors from oil and condensate tanks are sent to the flare, and air is also added to provide oxygen for combustion. The vapors and air are ignited by natural gas pilot flames, and much of the HAP, VOC, and methane content of the tank vapors can be destroyed. The destruction efficiency for flares can vary greatly depending on residence time, temperature profile, mixing, and other factors. Properly designed and operated flares have been reported to achieve 98% destruction efficiencies.

Applying 98% destruction efficiency to the Barnett Shale oil and condensate tanks emissions estimates shown in Table 16 results in potential emission reductions of 30 tpd of VOC, 0.6 tpd of HAPs, and 7 tpd of methane. These reductions are substantial and would provide large benefits to the ozone and PM precursor, HAPs, and greenhouse gas emission inventory of the Barnett Shale area. The use of flares,



however, also has several drawbacks. One of these is that tank vapor flares need a continuous supply of pilot light natural gas, and reports have estimated pilot light gas consumption at around 20 scfh/flare.<sup>(14)</sup>

Table 23 presents a summary of the results of an economic analysis performed in 2006 by URS Corporation for using flares or vapor recovery units to control emissions from a tank battery in Texas.<sup>(14)</sup> Capital costs were estimated by URS with a 5-year straightline amortization of capital. Flow from the tank battery was 25Mscf/day and VOC emissions were approximately 211 tpy. Costs were in 2006 dollars.

**Table 23. Economics of Flares and Vapor Recovery Units.**

Control Option	Total Installed Capital Cost (\$)	Annual Installed Operating Cost (\$/yr)	Operating Cost (\$/yr)	Value Recovered (\$/yr)	VOC Destruction Cost Effectiveness (\$/ton VOC)
Enclosed Flare	40,000	8000	900	NA	40
VRU	60,000	12000	11,400	91,300	(\$320)*

\*VRU produces positive revenue, resulting in zero cost for VOC control, after accounting for value of recovered products.

The URS analysis indicated that flares were able to cost effectively reduce VOC emissions at \$40/ton, while VRU units produced no real costs and quickly generated additional revenue from the products recovered by VRU operation. There was a less-than 1 year payback on the use of a VRU system, followed by years of the pollution control device becoming steady revenue source.

### 5.3 Well Completions

Procedures have been developed to reduce emissions of natural gas during well completions. These procedures are known by a variety of terms, including "the green flowback process" and "green completions."<sup>(39,40)</sup> To reduce emissions, the gases and liquids brought to the surface during the completion process are collected, filtered, and then placed into production pipelines and tanks, instead of being dumped, vented, or flared. The gas cleanup during a "green" completion is done with special temporary equipment at the well site, and after a period of time (days) the gas and liquids being produced at the well are directed to the permanent separators, tanks, and piping and meters that are installed at the well site. Green completion methods are not complex technology and can be very cost effective in the Barnett Shale. The infrastructure is well-established and gathering line placement for the initial collection of gas is not a substantial risk since wells are successfully drilled with a very low failure rate.

Emissions during well completions depend on numerous site-specific factors, including the pressure of the fluids brought to the surface, the effectiveness of on-site gas capturing equipment, the control efficiency of any flaring that is done, the chemical composition of the gas and hydrocarbon liquids at the drill site, and the duration of drilling and completion work before the start of regular production.

Some recent reports of the effectiveness of green completions in the U.S. are available, including one by the U.S. EPA which estimated 70% capture of formerly released gases with green completions, and another report by Williams Corporation which found that 61% to 98% of gases formerly released during well completions were captured with green completions.<sup>(40-41)</sup> Barnett Shale producer Devon Energy is using green completions on its wells, and they reported \$20 million in profits from natural gas and condensate recovered by green completed wells in a 3 year period.<sup>(42)</sup>

If green completion procedures can capture 61% to 98% of the gases formerly released during well completions, the process would be a more environmentally friendly alternative to flaring of the gases, since flaring destroys a valuable commodity and prevents its beneficial use. Green completions would also certainly be more beneficial than venting of the gases, since this can release very large quantities of

methane and VOCs to the atmosphere. Another factor in favor of capturing instead of flaring is that flaring can produce carbon dioxide (a greenhouse gas), carbon monoxide, polycyclic aromatic hydrocarbons, and particulate matter (soot) emissions.

#### 5.4 Fugitive Emissions from Production Wells, Gas Processing, and Transmission

Fugitive emissions from the production wells, gas processing plants, gas compressors, and transmission lines in the Barnett Shale can be minimized with aggressive efforts at leak detection and repair. Unlike controlling emissions from comparatively smaller numbers of engines or tanks (numbering in the hundreds or low thousands per county), fugitive emissions can originate from tens of thousands of valves, flanges, pump seals, and numerous other leak points. While no single valve or flange is likely to emit as much pollution as a condensate tank or engine exhaust stack, the cumulative mass of all these fugitives can be substantial. There are readily-available measures that can reduce fugitive emissions.

##### *i. Enhanced Leak Detection and Repair Program*

The federal government has established New Source Performance Standards for natural gas processing plants a.k.a. NSPS Subpart KKK.<sup>(43)</sup> These standards require regularly scheduled leak detection, and if needed, repair activities for items such as pumps, compressors, pressure-relief valves, open-ended lines, vapor recovery systems, and flares. The NSPS applies to plants constructed or modified after January 20, 1984. The procedures and standards in the processing plant NSPS are generally based on the standards developed for the synthetic organic manufacturing chemicals industry.<sup>(44)</sup>

Fugitive emissions from oil and gas wells, separators, tanks, and metering stations are not covered by the processing plant NSPS. Nonetheless, the leak detection and repair protocols established in the NSPS could certainly be used to identify fugitive emissions from these other items. Leak detection at processing plants covered by the NSPS is performed using handheld organic vapor meters (OVMs), and inspections are required to be done on a specified schedule. These same procedures could be used at every point along the oil and gas system in the Barnett Shale to identify and reduce emissions of VOCs and methane. Doing so would reduce emissions, and by doing so, increase production and revenue to producers.

It is difficult to estimate the exact degree of emission reductions that are possible with fugitive emission reduction programs. The large and varied nature of fugitive emission points (valves, fittings, etc.) at production wells, processing plants, and transmission lines means that each oil and gas related facility in the Barnett Shale will have different options for reducing fugitive emissions. In general, leak detection and repair programs can help identify faulty units and greatly reduce their emissions.

##### *ii. Eliminating Natural Gas-Actuated Pneumatic Devices*

The State of Colorado is currently adopting and implementing VOC control strategies to reduce ambient levels of ozone in the Denver metropolitan area and to protect the numerous national parks and wilderness areas in the state. As part of this effort, the state investigated the air quality impacts of oil and gas development, including the impacts of the pneumatically-controlled valves and other devices that are found throughout gas production, processing, and transmission systems. The State of Colorado confirmed the basic conclusions arrived at earlier by EPA and GRI in 1995, that these pneumatic devices can be substantial sources of CH<sub>4</sub>, VOC, and HAP emissions.<sup>(45,46)</sup> Much of the following information on these devices and the strategies to control emissions is based on a review of the recent work in Colorado.

Valves and similar devices are used throughout the oil and gas production, processing, and transmission systems to regulate temperature, pressure, flow, and other process parameters. These devices can be operated mechanically, pneumatically, or electrically. Many of the devices used in the natural gas sector

are pneumatically operated. Instrument air (i.e. compressed regular air) is used to power pneumatic devices at many gas processing facilities, but most of the pneumatic devices at production wells and along transmission systems are powered by natural gas.<sup>(46)</sup> Other uses of pneumatic devices are for shutoff valves, for small pumps, and with compressor engine starters.

As part of normal operation, most pneumatic devices release or "bleed" gas to the atmosphere. The release can be either continuously or intermittently, depending on the kind of device. In 2003 U.S. EPA estimated that emissions from the pneumatic devices found throughout the production, processing, and transmission systems were collectively one of the largest sources of methane emissions in the natural gas industry. Some U.S. natural gas producers have reduced natural gas emissions significantly by replacing or retrofitting "high-bleed" pneumatic devices. High-bleed pneumatic devices emit at least 6 standard cubic feet gas per hour.<sup>(46)</sup> Actual field experience is demonstrating that up to 80 percent of all high-bleed devices in natural gas systems can be replaced or retrofitted with low-bleed equipment.

The replacement of high-bleed pneumatic devices with low-bleed or no-bleed devices can reduce natural gas emissions to atmosphere by approximately 88 or 98 percent, respectively.<sup>(21, 47)</sup> Anadarko Petroleum Corporation estimated that VOC emissions from their pneumatic devices will be reduced by 464 tpy once 548 of their pneumatic controllers are retrofitted in Colorado.<sup>(46)</sup>

It may not be possible, however, to replace all high-bleed devices with low or no bleed alternatives. In the state of Colorado, it was estimated that perhaps up to 20 percent of high-bleed devices could not be retrofitted or replaced with low-bleed devices. Some of these included very large devices requiring fast and/or precise responses to process changes which could not yet be achieved with low-bleed devices.

But even for these devices that appear to require high-bleed operation, alternatives are available. Natural gas emissions from both high bleed and low bleed devices can be reduced by routing pneumatic discharge ports into a fuel gas supply line or into a closed loop controlled system. Another alternative is replacing the natural gas as the pneumatic pressure fluid with pressurized air. Instrument pressurized air systems are sometimes installed at facilities that have a high concentration of pneumatic devices, full-time operator presence, and are on a power grid. In an instrument pressurized air system, atmospheric air is compressed, stored in a volume tank, filtered, and dried. The advantage of a pressurized air system for operating pneumatic devices is that operation is the same whether they air or natural gas is used. Existing pneumatic gas supply piping, control instruments, and valve actuators can be reused when converting from natural gas to compressed air.

The U.S. EPA runs a voluntary program, EPA Natural Gas STAR, for companies adopting strategies to reduce their methane emissions. Experience from companies participating in the program indicates that strategies to reduce emissions from pneumatic devices are highly cost effective, and many even pay for themselves in a matter of months.<sup>(46)</sup> EPA reports that one company replaced 70 high-bleed pneumatic devices with low-bleed devices and retrofitted 330 high-bleed devices, which resulted in an emission reduction of 1,405 thousand cubic meters per year. At \$105/m<sup>3</sup>, this resulted in a savings of \$148,800 per year. The cost, including materials and labor for the retrofit and replacement, was \$118,500, and therefore, the payback period was less than one year. Early replacement (replacing prior to projected end-of-service-life) of a high-bleed valve with a low-bleed valve is estimated to cost \$1,350. Based on \$3/m<sup>3</sup> gas, the payback was estimated to take 21 months. For new installations or end of service life replacement, the incremental cost difference of high-bleed devices versus low-bleed devices was \$150 to \$250. Based on \$3 per Mcf gas, the payback was estimated to take 5 to 12 months.<sup>(46)</sup>

Overall, cost-effective strategies are available for reducing emissions and enhance gas collection from pneumatic devices in Barnett Shale area operations. These strategies include:

- Installing low- or no-bleed pneumatic devices at all new facilities and along all new transmission lines;
- Retrofitting or replacing existing high-bleed pneumatic devices with low- or no-bleed pneumatic devices;
- Ensuring that all natural gas actuated devices discharge into sales lines or closed loops, instead of venting to the atmosphere;
- Using pressurized instrument air as the pneumatic fluid instead of natural gas.

## 6.0 CONCLUSIONS

Oil and gas production in the Barnett Shale region of Texas has increased rapidly over the last 10 years. The great financial benefits and natural resource production that comes from the Barnett Shale brings with it a responsibility to minimize local, regional, and global air quality impacts. This report examined emissions of smog forming compounds, air toxic compounds, and greenhouse gases from oil and gas activity in the Barnett Shale area, and identified methods for reducing emissions.

Emissions of ozone and fine particle smog forming compounds (NO<sub>x</sub> and VOC) will be approximately 191 tons per day on an annual average basis in 2009. During the summer, VOC emissions will increase, raising the NO<sub>x</sub> + VOC total to 307 tpd, greater than the combined emissions from the major airports and on-road motor vehicles in the D-FW metropolitan area.

Emissions in 2009 of air toxic compounds from Barnett Shale activities will be approximately 6 tpd on an annual average, with peak summer emissions of 17 tpd.

Emissions of greenhouse gases like carbon dioxide and methane will be approximately 33,000 CO<sub>2</sub> equivalent tons per day. This is roughly comparable to the greenhouse gas emissions expected from two 750 MW coal-fired power plants.

Cost effective emission control methods are available with the potential to significantly reduce emissions from many of the sources in the Barnett Shale area, including

- the use of "green completions" to capture methane and VOC compounds during well completions,
- phasing in of electric motors as an alternative to internal-combustion engines to drive gas compressors,
- the control of VOC emissions from condensate tanks with vapor recovery units, and
- replacement of high-bleed pneumatic valves and fittings on the pipeline networks with no-bleed alternatives.

Large reductions in greenhouse gas emissions could be achieved through the use of green completion methods on all well completions, with the potential to eliminate almost 200 tpd of methane emissions while increasing revenue for producers by recovering saleable gas. In addition, the replacement of internal combustion engines with electric motors for compression power could reduce smog-forming emissions in the D-FW metropolitan area by 65 tpd. Significant emission reductions could also be achieved with the use of vapor recovery units on oil and condensate tanks, which could eliminate large amounts of VOC emissions. Vapor recovery units on condensate tanks would pay for themselves in a matter of months by generating additional revenue to producers from the gas and condensate that would be captured instead of released to the atmosphere. Fugitive emissions of methane, VOC, and HAPs could be reduced with a program to replace natural gas actuated pneumatic valves with units actuated with compressed air. For those devices in locations where compressed air is impractical to implement, connection of the bleed vents of the devices to sales lines also could greatly reduce emissions.

There are significant opportunities available to improve local and regional air quality and reduce greenhouse gas emissions by applying readily available methods to oil and gas production activities in the Barnett Shale.

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*Author's Notes:*

*A draft version of this report was prepared in September 2008 and distributed for review and comment to oil and gas producers, state and federal regulators, authors of some of the references used in this report, and others. The author appreciates the comments received by those reviewers and the time they took to provide feedback. For the purpose of full disclosure, the author notes that he was an employee with Radian International LLC working on projects for several gas industry clients, including the Gas Research Institute and gas pipeline companies, during the time that "Methane Emissions from the Natural Gas Industry" (Reference 15) was published. The authors of Reference 15 were also employees of Radian International LLC, working as contractors for the Gas Research Institute and the Environmental Protection Agency. The author of this study notes that he did not work on or participate in the GRI/EPA project performed by the other Radian International personnel.*

*Images on the cover page from the Texas Railroad Commission and the U.S. Department of Energy.*

*Some typos and spreadsheet errors fixed on 2/8/2009.*

*Finally, the statements and recommendations in this study are those of the author, and do not represent the official positions of Southern Methodist University.*

## **FLOWER MOUND WELL SITE IMPACT STUDY**

### **PREPARED FOR:**

Kent Collins, P.E.  
Assistant Town Manager  
Town of Flower Mound  
2121 Cross Timbers Rd.  
Flower Mound, TX 75028

### **REPORT FORMAT:**

Summary Consultation Report

**INTEGRA REALTY RESOURCES - DFW**

File Number: 116-2010-0511



**I**NTEGRA Realty Resources

*LOCAL EXPERTISE...NATIONALLY*



8/17/2010

Kent Collins, P.E.  
Assistant Town Manager  
Town of Flower Mound  
2121 Cross Timbers Rd.  
Flower Mound, TX 75028

SUBJECT: Well Site Impact Consultation  
Integra – DFW File Number 116-2010-0511

Dear Mr. Collins:

Integra Realty Resources – DFW is pleased to submit the accompanying consultation report concerning the impact of natural gas well sites. The purpose of this assignment is to develop an opinion of the general impact on improved residential properties in the Flower Mound area, as a result of their proximity to gas wells.

The consultation report is intended to conform with the Uniform Standards of Professional Appraisal Practice (USPAP), the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, for real property consultation assignments.

To report the assignments results, we follow Standards Rule 5 of USPAP. Accordingly, this report contains summary discussions of the data, reasoning, and analyses that are used in the consulting process whereas supporting documentation is retained in our file. The depth of discussion contained in this report is specific to the needs of the client and the intended use of the report.

Our study results show that residential property in the Flower Mound market with price points over \$250,000 and immediately adjacent to well sites can experience an impact from -3% to -14% in value based on the sales comparison method. Any influence on property values on a linear basis was found to dissipate at around 1,000 feet from the wellhead. Data from most well sites studied in this report outside Flower Mound suggests that there is little or no impact on residential property from proximity to well sites.

Sales comparison research indicated that a diminution in value due to proximity to natural gas sites occurs only for properties immediately adjacent to the site. Several sales where view of the well site was obstructed by buffers such as trees or other structures indicate that value is not measurably impacted, even when the property is in close proximity.

The range in property value decline found in price-distance relationships was observed to be about -1% to -9%. This methodology was less conclusive than the sales comparison method but still indicated the same general trends. Sites that resulted in negative impacts were in close proximity to houses and most were in the Flower Mound area. Impact on housing prices by price-distance method generally dissipated between 1,000 and 1,500 feet. The sales comparison method indicated the impact to dissipate at a closer proximity.

Statistical analysis resulted in no consistent and statistically significant diminution in value within the distances measured. This method illustrates how much variance in the data impacts the results. If there were a significant and sizeable diminution in value as a result of well proximity, the statistical analysis method likely would have revealed it.

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Please see the executive summary that follows for a summary of our findings and methodologies.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

**INTEGRA REALTY RESOURCES - DFW**

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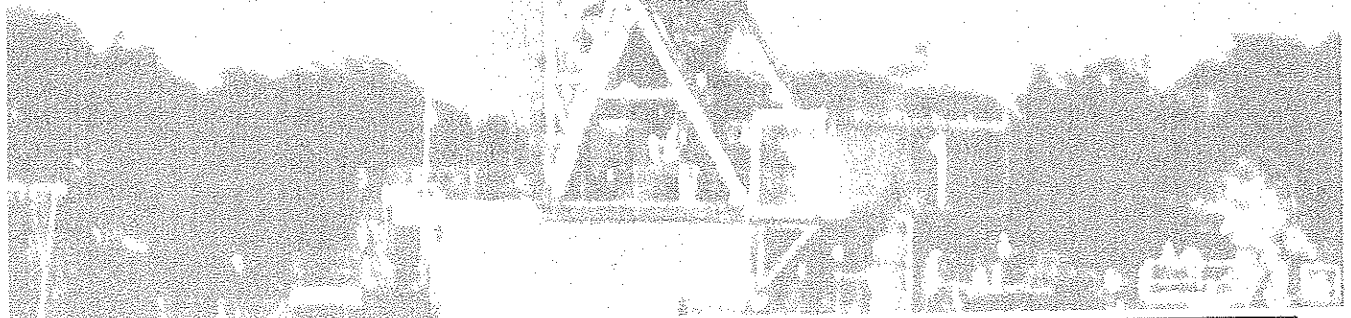
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## GENERAL INFORMATION & SCOPE OF WORK

### IDENTIFICATION OF PROJECT AREA

The project area is identified as the Town of Flower Mound, for the purposes of this assignment. The purpose of this assignment is to determine what impact, if any, accrues to improved residential properties in the Town of Flower Mound as a result of their proximity to natural gas well sites. Therefore, the scope of this project includes possible well sites and their surrounding neighborhoods.

### IDENTIFICATION OF THE CLIENT

This consultation report is prepared for Kent Collins, P.E., Assistant Town Manager, The Town of Flower Mound, 2121 Cross Timbers Rd., Flower Mound, TX 75028.

### INTENDED USERS AND INTENDED USE

The intended users of this report include the client and its employees/agents. The intended use of this report is to assist the client in their determination of any impact on values of residential properties as a result of their proximity to natural gas facilities, particularly well sites. Others may receive a copy of this report due to legal requirements of disclosure, but the report is not intended for any other use or user.

This report is not intended to provide any indication of impact on land, whether residential or commercial, nor improved commercial properties. The findings contained in this report are limited only to the subject studied, which is improved residential property in the Flower Mound market. Misapplication of the results of this study applied to other property types may result in false conclusions.

### OBJECTIVE OF THE ASSIGNMENT

The objective of the assignment is to develop an opinion of the impact, if any, of the proximity of improved residential properties as a result of their proximity to natural gas well sites. This assignment and its conclusions apply only to the Town of Flower Mound, and any other areas as may be deemed comparable by the appraisers.

### WELL SITE VERSUS DRILL SITE DEFINITIONS

In this report, the terms "well site" and "drill site" may be used interchangeably, as is common in the marketplace. In reality, there is a notable difference between the two, namely that a "drill site" is a location where an active drilling rig has been assembled and drilling activities are in progress. A drill site has more activity than a well site and is noticeable by sound, vibration, and additional traffic. A "well site" consists of one or more wells that have been bored at the drill site but that no longer have drilling operations in progress. A typical well site has a visible well head and storage tanks. Drilling for one well can be completed in as little as 21 days and multiple wells can be bored from the same site. The active drilling stage is several months on average.

This study more accurately reflects the impacts of well sites on improved residential property but those sales that occurred nearest in time to the drill date of the well will reflect the impact of drilling operations on property values.

Some well sites are improved with compressors that vary greatly from site to site. Compressors essentially pressurize the gas to enable it to move through pipelines. Compressor sites typically do not stand alone but are located with wells on the same site. They are above-ground appurtenances that remain during the life of the well. Many municipalities regulate the placement of compressors and have requirements regarding noise emission, screening, etc. This study does not address specific effects of compressors on neighboring properties separate from well sites. Compressors are noted where present on well sites.

### INTRODUCTION

Denton County lies in the Barnett Shale rock formation that bears natural gas that is bound in various forms. Drilling in rural areas of Denton County has been ongoing for decades and most notably since the advent of new technology that has enabled horizontal drilling and fracturing of the rock formations bearing the natural gas. As this technology has progressed and as rural areas have become saturated with well sites, many gas companies seek to take advantage of the gas deposits in more urban areas, including Flower Mound.

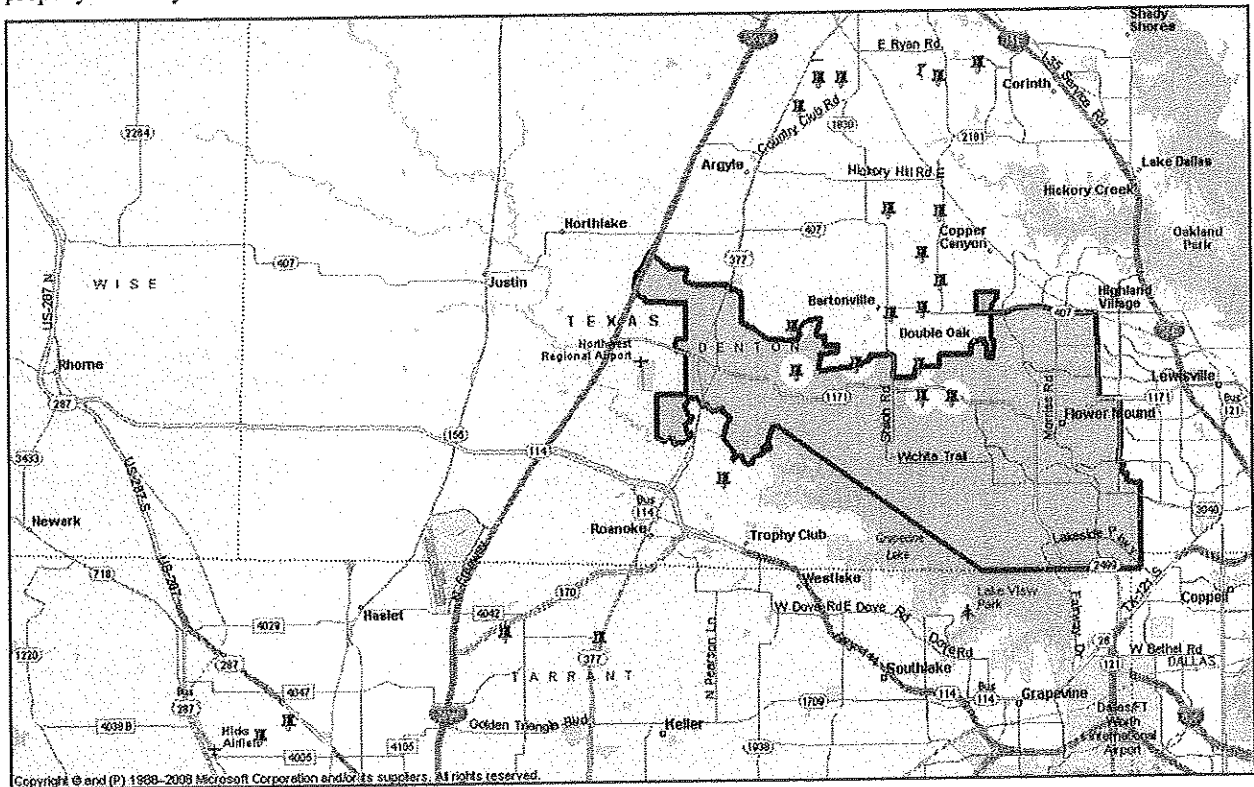
Many natural gas wells have been permitted in the Flower Mound area. However, as a result of the drop in natural gas prices, many of these wells have not yet been drilled. What wells have been drilled are recent; many being drilled in 2008 or later.



The process of preparing a site for drilling includes the purchase of the land, public hearings for rezoning, registration with the Texas Railroad Commission, site preparation and finally, drilling. Most drill sites encompass three to five acres that allow for multiple wells to be drilled from the same site. Under optimal conditions, a well can be drilled in 21 days, but typically takes longer. Most sites have rigs in place for drilling for three to four months. Drilling activity may take longer in some locations because multiple "horizontal" wells can be drilled from the same site in varying directions. Most sites are clear cut, graded with a gravel base, and fenced with high sound mitigation walls. Well sites in Flower Mound, as other cities in Denton County, are required to establish sound mitigation plans and to screen the well site with earthen berms, brick walls, and/or landscaping.

The drilling phase is the most noticeable by neighboring residents and sometimes prompts complaints regarding nuisance and loss in property values. Once drilling has ceased, the greatest impact to the neighborhood is the increased truck traffic to empty tanks on site. In order to quantify potential affects on residential property values as a result of the drilling, sales of house around drill sites have been researched. The combination of the relatively immature natural gas industry in the Flower Mound area coupled with the low volume of market transactions results in limited market data in the immediate area. Therefore, part of this study takes into consideration markets with more mature natural gas fields in other parts of Denton County to determine the impact on residential property values from natural gas facilities.

The highlighted pushpins in the map below show the locations of most of the gas wells that were analyzed for our study. The blue area represents the approximate municipal boundaries for the Town of Flower Mound. Five of the twenty-two permitted gas well sites in Flower Mound were found to be drilled and located with sufficient proximity to recent sales of residential property for analysis.



## DATA SOURCES

Data regarding sales prices and property characteristics for most neighborhoods are gathered from North Texas Real Estate Information Systems, Inc (NTREIS, fka "MLS"). Sale data for the Trophy Club well are gathered from the Denton County Appraisal District. These sources are not *guaranteed* to be 100% correct but are believed to be reasonably accurate for the purposes of this assignment.

## MARKET AREA ANALYSIS

The subject region is located in the Lewisville-Flower Mound submarket of the Dallas/Fort Worth MSA, immediately northwest of Dallas/Fort Worth International Airport. This market area is generally delineated as follows:

North	Lake Lewisville/FM 407
South	Grapevine Lake
East	IH 35E
West	US 377

The Town of Flower Mound is located primarily in southern Denton County, approximately 28 miles northwest of downtown Dallas, 25 miles northeast of Fort Worth, and three miles north of the Dallas/Fort Worth (DFW) International Airport. These areas have a great influence on the subject's market area. The appeal of the market area includes its accessibility from several interstate highways to the Fort Worth and Dallas CBDs, and its proximity to Dallas/Fort Worth International Airport.

## ACCESS AND LINKAGES

Primary access to the area is provided by Interstate 35 East, a major arterial that crosses Denton County and the Dallas/Fort Worth metro area in a north/south direction. Access to the subject from Interstate 35 East is provided by Cross Timbers Road (FM 1171), and travel time from the major arterial to the subject is less than five minutes. Secondary north/south access to the subject is provided by Long Prairie Road (FM 2499). Overall, vehicular access is average.

Public transportation is not provided in the Town of Flower Mound. However, the Denton County Transportation Authority (DCTA) provides bus service from Downtown Denton to Downtown Dallas and the nearest bus station is located at the intersection of FM 407 and Interstate 35 East. In addition, the DCTA is also working on the A-Train project that will provide train service throughout the area. The local market perceives public transportation as average compared to other areas in the region. However, the primary mode of transportation in this area is the automobile.

The Dallas/Fort Worth International Airport is located approximately three miles from the property; travel time is about ten minutes, depending on traffic conditions. The Dallas and Fort Worth CBDs, the economic and cultural centers of the region, are approximately 25 miles from the market.

## DEMAND GENERATORS

Major employers in the Town of Flower Mound include Lewisville ISD, Town of Flower Mound, Stryker Communications, Best Buy Distribution Center, and HD Supply. In addition to its strong employment base, the area is easily accessible to the Dallas/Fort Worth Metroplex, all within one hour drive time. Access to employment centers in other submarkets is a major demand driver. These demand generators support the demographic profile described in the following section.

## DEMOGRAPHIC FACTORS

A demographic profile of the surrounding area, including population, households, and income data, is presented in the following tables, as provided by *Claritas Pop-Facts*. The data below is for the Town of Flower Mound, as compared to the DFW Metroplex four-county area.

Population	Flower Mound, Texas	DFW Metroplex
2015 Projection	86,064	6,265,105
2010 Estimate	72,350*	5,723,721
2000 Census	50,702	4,589,769
1990 Census	15,788	3,560,474
Growth 2010-2015	18.96%	9.46%
Growth 2000-2010	42.70%	24.71%
Growth 1990-2000	221.14%	28.91%

Income	Flower Mound, Texas		DFW Metroplex	
2010 Est. Average Household Income	\$143,913		\$78,525	
2010 Est. Median Household Income	\$119,771		\$58,239	
2010 Est. Per Capita Income	\$45,729		\$28,424	
2010 Est. Tenure of Occupied Housing Units				
Owner Occupied	21,445	93.48%	1,267,844	61.64%
Renter Occupied	1,495	6.52%	788,934	38.36%
2010 Est. All Owner-Occupied Housing Values				
Value Less than \$20,000	157	0.73%	18,683	1.47%
Value \$20,000 - \$39,999	208	0.97%	38,239	3.02%
Value \$40,000 - \$59,999	161	0.75%	70,721	5.58%
Value \$60,000 - \$79,999	76	0.35%	95,156	7.51%
Value \$80,000 - \$99,999	153	0.71%	121,734	9.60%
Value \$100,000 - \$149,999	2,393	11.16%	336,167	26.51%
Value \$150,000 - \$199,999	5,399	25.18%	215,895	17.03%
Value \$200,000 - \$299,999	6,789	31.66%	205,643	16.22%
Value \$300,000 - \$399,999	3,957	18.45%	77,223	6.09%
Value \$400,000 - \$499,999	958	4.47%	32,555	2.57%
Value \$500,000 - \$749,999	844	3.94%	34,224	2.70%
Value \$750,000 - \$999,999	237	1.11%	12,031	0.95%
Value \$1,000,000 or more	113	0.53%	9,573	0.76%
Value Greater Than \$300,000	6,109	28.49%	165,606	13.06%

Source: Claritas Pop-Facts: Demographic Snapshot

\*As shown above, the current population for Flower Mound is estimated by Claritas to be about 72,350. The Town of Flower Mound estimates the current population to be 62,950, a difference of 9,400. This information is based on population trends based on the 2000 Census. Once data is released from the 2010 Census, these estimates may be revised.

<i>Integra Estimates (based on Claritas data)</i>	Flower Mound, Texas		DFW Metroplex	
Interpolated Value \$250,000-\$299,999	3,395 houses	15.83%	102,822 houses	8.11%
Homes Valued Greater Than \$250,000	9,504 houses	44.32%	268,428 houses	21.17%
<b>Town of Flower Mound Estimates</b>				
2010 Average Tax Value in Flower Mound (Category A Only)	\$287,562			
2009 Average Tax Value in Flower Mound (Category A Only)	\$290,642			
2010 Population	62,950			
2015 Population Projection	65,000			

Population in the area has grown over the past 20 years, and this trend is expected to continue in the foreseeable future. Population trends and income levels in the area are considered above average compared to the DFW Metro area as a whole.

Compared to other cities in the Flower Mound area, home values appear near the average of the data from the areas selected for this study. The following table shows average sale prices of homes in each community from August 1, 2009 to the present. This data is gathered from the North Texas Real Estate Information System.

Location	Average Sale Price	Number of Sales
West Fort Worth MLS Area 112-3	\$108,237	418
North Fort Worth MLS Area 102-1	\$161,069	669
South Denton	\$176,812	331
Flower Mound	\$294,114	1,034
Keller	\$306,475	633
Lantana	\$322,447	185
Trophy Club	\$327,240	220
Bartonville/Double Oak	\$370,088	34
Argyle	\$403,223	68
Copper Canyon	\$460,306	12
<b>Average</b>	<b>\$293,001</b>	

### LAND USE

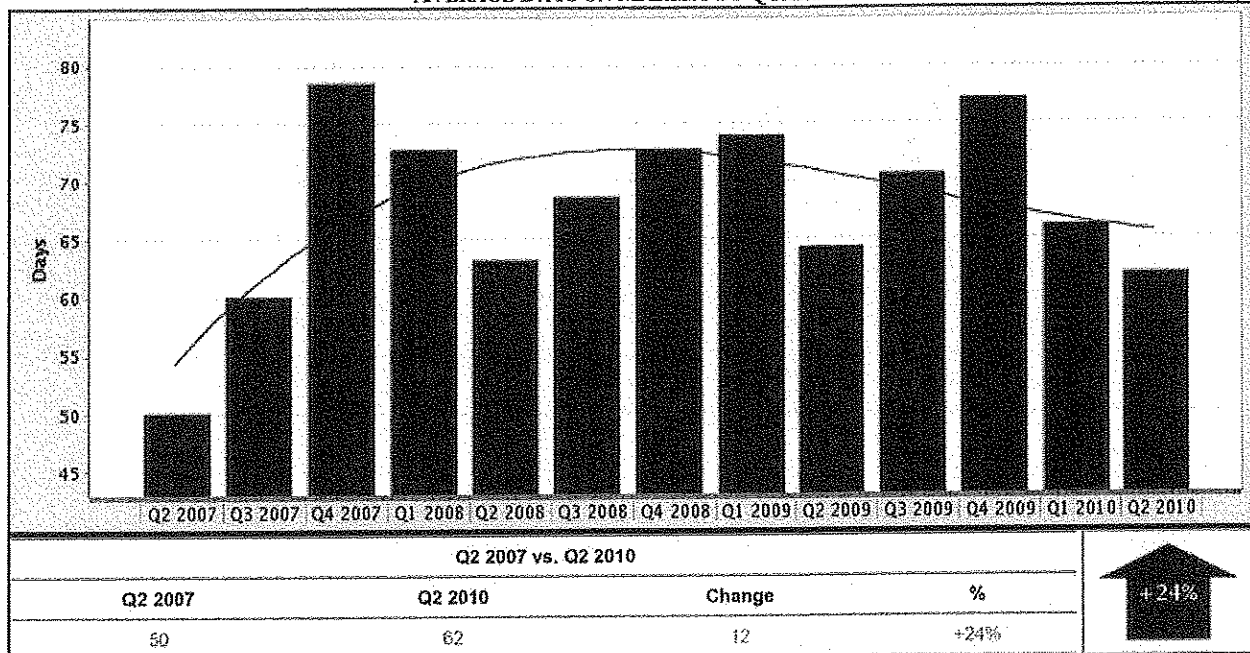
The immediate market area contains a mixture of uses. Other land use characteristics are summarized below.

SURROUNDING AREA LAND USES	
Character of Area	Suburban
Predominant Housing Age (Both Ownership and Rental)	2-10 years
Predominant Quality and Condition	Average
Approximate Percent Developed	50%
Percent Developed by Land use	80% Single Family; 20% Commercial
Infrastructure/Planning	Average
Prospective Change in Land Use	Not likely
Prevailing Direction of Growth	Northwest

### DEVELOPMENT ACTIVITY AND TRENDS

The Multiple Listing Service (MLS) indicates that the for Southeast Denton County includes single-family housing values that are above average when compared to the greater Dallas/Fort Worth Metroplex area as a whole. The following chart reveals that from Q2 2007 to Q2 2010 the average Days On Market has increased by 12 days or 24%. However, the average days on the market for Q2 2010 have declined since Q1 2010, and which was lower than Q4 2009.

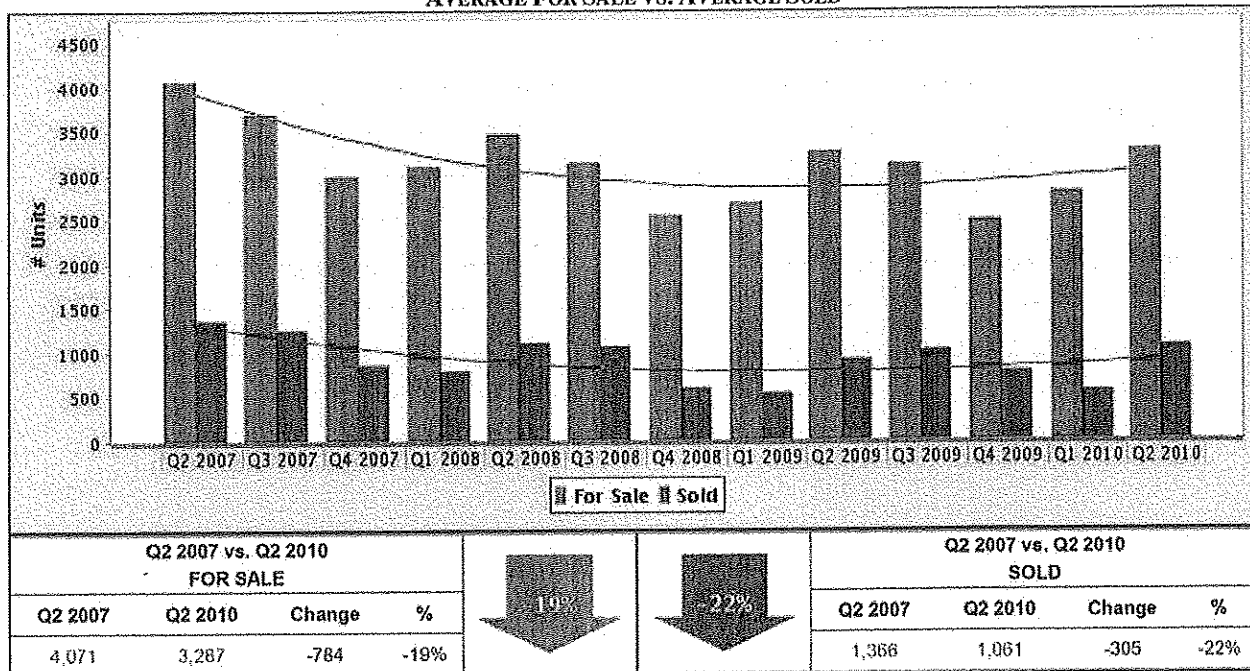
## AVERAGE DAYS ON MARKET BY QUARTER



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The number of for sale properties in Q2 2010 has increased since Q4 2009 but is down 19% from Q2 2007. Additionally, the number of sold properties is down 22% from Q2 2007, but is up from the previous quarter, Q1 2010.

## AVERAGE FOR SALE VS. AVERAGE SOLD



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The Chimney Rock Estates Addition on the south side of FM 1171, east of Post Oak Road was the first conservation easement subdivision in Flower Mound with 50% of the land set aside as an untouched nature preserve. It consists of 48 lots along meandering streets, adjoining about 50 acres of conservation easement and a community pond. The first homes were

constructed in 2003 on lot sizes of approximately one acre. The 2-acre minimum lot size required by the zoning ordinance was adjusted as a result of the amount of land allocated to the nature conservation area. As of April of 2010, all of the 48 lots were sold. Home sizes average about 5,000 square feet in size and since January 2008 sell for an average of about \$773,191 or \$146/SF.

The nearest shopping facilities serving the area are located less than one mile from the property. They offer basic convenience goods and personal services. Restaurants, principally along major arterials such as Starbuck's, Pizza Hut, and Quizno's, are within a five-minute travel time of the property. The closest lodging facilities are located within a five minute drive of the subject and include Hampton Inn, Select Inn, and Days Inn. The nearest fire and police stations are within two miles of the property.

The Estates at Tour 18 has several lots still for sale ranging from \$299,900 to \$359,000 and between 1.656 acres and 2.2661 acres currently.

FM 1171 is proposed to be widened to six lanes between FM 2499 and IH 35W, with construction to begin in phases from east to west that began in 2007. Right-of-way has been acquired in the subject vicinity and is incorporated into the subject planned development. Approximately 1.276 acres of land was acquired along the subject's highway frontage. A new arterial is proposed to be constructed from the north side of FM 1171, west of the subject property, curving northerly and then westerly to the east side of US 377. Another arterial is proposed to be constructed from the east side of IH 35W, curving easterly and then southerly to the north side of FM 1171 west of the existing railroad tracks. The current FM 1171 railroad crossing at grade is proposed to be replaced by an underpass.

### OUTLOOK AND CONCLUSIONS

The area is in the growth stage of its life cycle. Given the history of the area and the growth trends, it is anticipated that property values will stabilize in the near future.

## EXECUTIVE SUMMARY

Four methods for examining the impact of well sites on residential property values were employed.

1. **Price-Distance Relationship:** The sale prices of houses on a per square foot basis were compared to the distance to the well site in feet. A linear trend was developed and the relationship observed. Where possible, sales of houses outside a half-mile radius were utilized for comparison.
2. **Comparable Sales Analysis:** Sales adjacent to well sites were found and valued with four comparable properties, making adjustments for common value attribute differences. The actual sale price of the house adjacent to the well site was compared to the estimated value of the house were it not adjacent to a well site. Where possible, sales of houses outside a half-mile radius were utilized for comparison.
3. **Statistical Analysis:** In neighborhoods where there was a sufficient quantity of sales, linear regression analysis was performed to isolate the influence of the proximity of well sites on residential sale prices. This process produces an estimate of the influence on the houses in the sample as well as an estimate of the statistical significance of that distance.
4. **Survey of Market Participants:** Real estate agents in Flower Mound and surrounding communities were interviewed to determine if buyers considered proximity to gas well sites and if this is a pricing criteria for marketing purposes.

The type of natural gas facilities on the sites were observed from public rights-of-way where possible and from aerial photography. The facilities on site were identified visually where possible. The sites were classified by the type of facilities as follows:

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**Sites by Facility Type**


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<i>Wells and tanks only</i>	<i>Gas Lift Facilities</i>	<i>Compressor Sites/Collection Stations</i>
Acme	Alliance-Saratoga	Crow-Wright 4
Aune	TW King	Sam Wilson 1
Button		Chapel Creek
Crow-Wright 6		
Connell		
DCC		
Engler		
Bernice Jones 1		
Bernice Jones 2		
Lawrence		
Meece		
Sam Wilson 2		
Trophy Club		
Whyburn Unit		
Van Zandt Farms		

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The following criteria were utilized for well sites selection and given precedence in the following order:

1. Sites in and around the Town of Flower Mound where drilling has occurred.
2. Sites where a sufficient number of transactions have transpired in neighborhoods near the site.
3. Geographic locations and markets thought to be similar to Flower Mound.
4. Sites that were known to have facilities similar to those in Flower Mound.

There existed a certain potential for bias to enter the site selection process which could have occurred for multiple reasons. First, only sites that were relatively close to established subdivisions and concentrated population centers were researched, thus introducing the possibility that some sales immediately adjacent to well sites may have been overlooked. Additionally, as the search for sites was broadened beyond the town limits of Flower Mound, areas that were thought to be similar in the opinion of the researcher(s) were studied. Other sources of bias may have been present during the site selection process. It is

important for the reader to note that any bias in the study is unintentional. Techniques employed in this study are intended to reduce subjectivity.

#### STUDY SUMMARY

Our study results show that residential property in the Flower Mound market with price points over \$250,000 and immediately adjacent to well sites can experience an impact from -3% to -14% in value based on the sales comparison method. Any influence on property values on a linear basis was found to dissipate at around 1,000 feet from the wellhead. Data from most well sites studied in this report outside Flower Mound suggests that there is little or no impact on residential property from proximity to well sites.

Sales comparison research indicated that a diminution in value due to proximity to natural gas sites occurs only for properties immediately adjacent to the site. Several sales where view of the well site was obstructed by buffers such as trees or other structures indicate that value is not measurably impacted, even when the property is in close proximity.

The range in property value decline found in price-distance relationships was observed to be about -2% to -7%. This methodology was less conclusive than the sales comparison method but still indicated the same general trends. Sites that resulted in negative impacts were in close proximity to houses and most were in the Flower Mound area. Impact on housing prices by price-distance method generally dissipated between 1,000 and 1,500 feet. The sales comparison method indicated the impact to dissipate at a closer proximity.

Statistical analysis resulted in no consistent and statistically significant diminution in value within the distances measured. This method illustrates how much variance in the data impacts the results. If there were a significant and sizeable diminution in value as a result of well proximity, the statistical analysis method likely would have revealed it.

Not every well site included in this study provided sufficient data for analysis via each methodology. The following is a summary of the conclusions and observations drawn from available data in the Flower Mound area.

#### PRICE-DISTANCE RELATIONSHIP

In order to quantify proximity impact we began by searching out well sites in the Flower Mound area. We found that because limited transactions have transpired that are adjacent to well sites, a more generalized approach is necessary for such an immature natural gas market. Accordingly, we applied the following methodology to examine the relationship between home prices and distance to well sites.

#### METHODOLOGY FOR DISTANCE ARRAYS

1. Search for existing well sites in the Flower Mound region
2. Determine drilling commencement date
3. Search for all residential sales in subdivisions around well site
4. Exclude distressed sales
5. Measure distance from:
  - a. center of well site to center of rooftops if well head not visible, or
  - b. well head to center of rooftops if well head visible, or
  - c. latitude and longitude coordinates as identified by GIS software if possible
6. Compare distance from well site to price per square foot
7. Utilize sum of least squares method for determining linear trend
8. Observe rate of change in price compared to distance

This methodology indicates that within the Flower Mound Market, there is a slight change in value between houses nearer the well site than those farther away. Six neighborhoods in our study were observed to have a sufficient number of market transactions that have occurred since the reported drill date to extract a measure of the impact. Well drill dates and production dates were acquired from Texas Railroad Commission records. A summary of our findings follows.



Site	Location	Rate of Change at 1,000 feet*	Comments
Acme	Denton	-8.89%	Well not visible from subdivision
Lawrence	Denton	-7.35%	Well highly visible from adjacent homes
Hills of Argyle	<i>Argyle</i>	-6.96%	Wells visible from adjacent homes
Trophy Club	<i>Trophy Club</i>	-5.36%	Well immediately adjacent to the first sale
Whyburn	<i>Lantana</i>	-2.17%	Well highly visible from adjacent homes
Alliance-Saratoga	Fort Worth	-0.62%	High degree of variance in sale prices
Crow-Wright	Flower Mound	0.71%	Tree buffer between wells and houses
Meece	Double Oak	0.72%	Nearest sale 1,600 feet from well
Bunn	Flower Mound	1.02%	Well not highly visible
Button	Copper Canyon	1.25%	Well across road from first sale
Aune	Lantana	3.32%	Well not visible from sales in sample
Rayzor (Magnolia)	Lantana	3.60%	Well visible from nearest houses
Connell	Denton	6.23%	Well immediately adjacent to the first sale
Sam Wilson 2	Flower Mound	6.60%	Tree buffer between wells and houses
Engler	Keller	6.62%	Shared property line between site and sales
Rayzor	Lantana	9.60%	Well not visible from houses
DCC	Argyle	12.56%	Well clearly visible from closest street

\* Negative signs indicate that values decrease as proximity to a well site increases. Positive signs indicate that values increase as proximity to a well site increases. Locations with houses immediately adjacent to well sites and that indicate a negative impact are italicized.

We found that in the Flower Mound area, *when houses are immediately adjacent to well sites* there is a measurable impact on value. As distance from the well site increases, this affect quickly diminishes. On a straight-line basis, this impact was measured to be -2.17% to -6.96% in the samples taken. Variance in the data indicates that this impact is diluted at somewhere around 1,000 feet from the wellhead.

The price-distance methodology measures general trends and not specific transactions. It considers only proximity and price and cannot take into consideration other factors that influence value such as quality or year of construction. Therefore, more in-depth consideration of home sales adjacent to well sites is necessary. Yet, the lack of market transactions near completed wells has forced consideration of more well-established sites outside Flower Mound. As a result, we searched for well sites near urban areas in other areas of Denton and Tarrant Counties.

### COMPARABLE SALES ANALYSIS

In western parts of Flower Mound and other parts of Denton County, gas well drilling has been active and ongoing for several years. Subdivisions have been developed around gas drilling operations and new wells have been drilled near existing development. Several such locations were researched and residential transactions adjacent to well sites were located. Accordingly, we have applied the following methodology to compare the unit prices of these sales to other properties farther from well sites.

### METHODOLOGY FOR COMPARABLE SALES

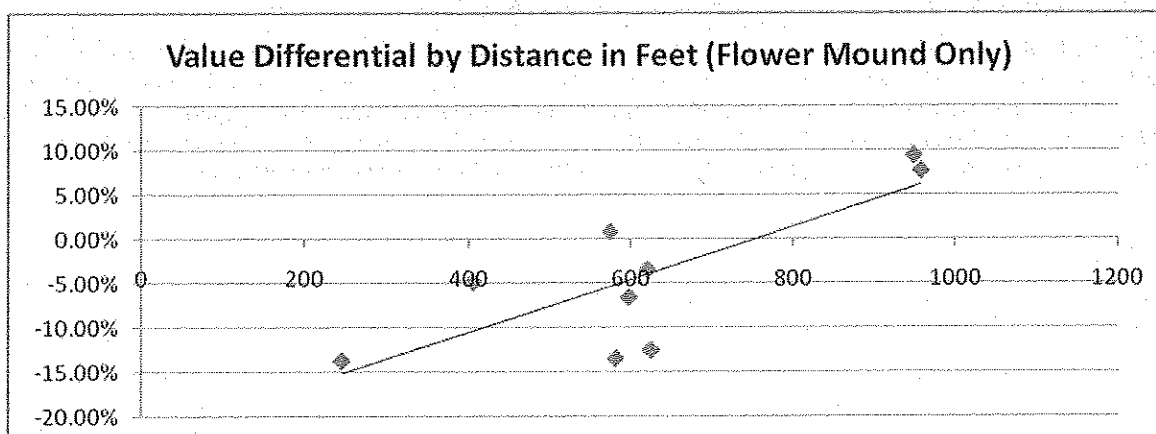
1. Search for existing wells in Tarrant County.
2. Determine drilling start date.
3. Search for residential sales around well site.
4. If sales are located, search for comparable residential sales in same or similar subdivision that are not near well sites. Sales on same street are discouraged to reduce confounding variables.
5. Select comparable properties, excluding distressed sales.
6. Make basic adjustments and determine value of house adjacent to well site as if well were not present.
7. Compare results to actual sale price.

Few wells have been drilled in locations that are in predominantly residential areas. Most wells are located in agricultural or recreational areas. As a result, few well sites are in urban residential areas. Several residential markets thought to be similar to those found in Flower Mound were identified. When individual sales in these markets were analyzed, there is some variance in the values of houses immediately adjacent to well sites as compared to those with no well site influence. Natural gas facilities thought to be comparable to Flower Mound were found to have measurable impacts as follows:

**Flower Mound-Comparable Sales Results**

Site	Set	Distance (ft)	Difference	Average Sale Price in Subdivision
Hills of Argyle	1	574	0.81%	\$425,000
	2	597	-6.57%	
	3	624	-12.53%	
	4	620	-3.46%	
Button	1	581	-13.45%	\$390,000
DCC	1	948	9.41%	\$505,000
Sam Wilson 2	1	957	7.66%	\$300,000
Trophy Club	1	246	-13.71%	\$390,000
Whyburn Unit	1	406	-4.81%	\$255,000

In some neighborhoods, multiple sales adjacent to well sites were found. Each set represents sales in near proximity to a well site and four comparable sales farther from the well site, utilized to value the affected property as if there were no well site influence. For each set, basic adjustments such as date of sale and size were adjusted for and the indicated values were averaged. In some cases, there is broad variation. However, most sets show little variation in the difference between the actual sale price of the residence adjacent to the well site and the comparable sales. The preponderance of evidence by the sales comparison method indicates that proximity to a well site has a -3% to -14% affect on property values in the Flower Mound area for properties over \$250,000. Most average price points in neighborhoods that exhibited a negative impact were over \$300,000. The Whyburn Unit is located at Lantana, a master-planned, golf course community, which is the only location showing a diminution in value for price points below \$300,000. Additionally, resales of some homes adjacent to well sites indicated that any diminution in value due to proximity to the well site diminishes over time.

**STATISTICAL ANALYSIS**

We performed statistical analysis on houses that have sold in proximity to well sites, compressor stations, and collection facilities where possible to see how the distance from these facilities impacts sale prices. The statistical tool of choice is the multiple linear regression package in Microsoft Excel. Linear regression uses the processing power of computers to place an incremental value on one or more elements of comparison. Elements of comparison are things like the square footage of a building, the size of a lot, or the number of bathrooms. The regression model derives a formula from the data the appraiser collects. It works very much like paired sale analysis that appraisers often utilize.

**METHODOLOGY FOR LINEAR REGRESSION**

1. Search for existing wells in Denton County.
2. Determine drilling start date.
3. Search for residential sales around well site.
4. If sales are located, search for comparable residential sales in same or similar subdivision that are not near well sites. Sales on same street are discouraged to reduce confounding variables.
5. Exclude distressed sales.
6. Select elements of comparison.
7. Utilize Microsoft Excel to perform multiple linear regression analysis.

The focus of regression analysis is to find a linear relationship between all of the sales data that reduces variations in value (sum of least squares). The sample (sales utilized in the study) is analyzed to determine how likely it is to be different from the total population of all houses in the neighborhood. Two indicators of reliability are used to determine how likely the results of the sample are to be different from the total population. They are the "t-stat" and "p-value." For purposes of this study rule-of-thumb benchmarks were utilized to determine the significance of our findings. Widely accepted "rules of thumb," are  $\pm 2$  for t-stats and less than or equal to 0.05 for p-values. This translates to a "margin of error" in our results of about 5% or a confidence level of about 95% that our results would be substantiated should the experiment be repeated.

#### LINEAR REGRESSION RESULTS

Site	Location	Number of Sales	Well Distance		Significant?
			t-stat	p-value	
Alliance-Saratoga	Fort Worth	100	-1.700	0.092	No
Aune	Lantana	80	-1.379	0.172	No
Hills of Argyle*	Argyle	51	1.907	0.063	No
Bunn	Flower Mound	324	-0.729	0.466	No
Connell*	Denton	67	-2.493	0.016	Yes
Crow-Wright* (Tour-18)	Flower Mound	32	-0.673	0.508	No
Engler*	Keller	19	-0.845	0.418	No
Lawrence	Denton	29	3.895	0.001	Yes
Meece	Double Oak	24	-1.976	0.067	No
Lantana*	Lantana	148	-0.428	0.669	No

\* Aggregation of sales near multiple gas wells in the same subdivision

On a linear basis, distance from a wellhead was not found to be a statistically significant determinant of property values in most cases. At the Connell site, well distance was found to be statistically significant in a negative direction. Contrarily, the Lawrence site indicated well distance was statistically significant in a positive direction. Most importantly, eight of the ten sites did not show well distance to be statistically significant. If proximity to a natural gas well was an important issue, one would expect most data to indicated well proximity to be statistically significant in a negative direction.

## SURVEY OF MARKET PARTICIPANTS

We surveyed market participants, including agents and builders, in Flower Mound and surrounding markets to determine if they have found that buyers consider the presence of well sites when making an offer on a house. Market participants generally state that the presence of a well/drill site has some impact on the marketability or marketing time for residential properties in the area. This trend is stronger for upscale homes on larger lots but most participants were hesitant to pinpoint a dollar value that would define between upscale homes and homes of lesser quality. The main impact on houses in the upper-middle to higher-end price ranges is marketing time because the house may have to be shown to more potential buyers before one can be found that is willing to purchase. Several respondents did not believe there to be a substantial impact on value especially in track homes because buyers are less concerned with outdoor living space.

Two notable themes arose from the interview process.

1. First, agents consistently agreed that during well drilling and hydraulic fracturing it is difficult to sell a home, thus increasing its marketing time. However, once drilling activity has ceased, houses are much easier to sell.
2. Secondly, many active market participants believed that the influence on property values of proximity to gas wells is over-estimated by home owners.

A cross-section of interview summaries is provided below.

### Kristen Summers, Agent

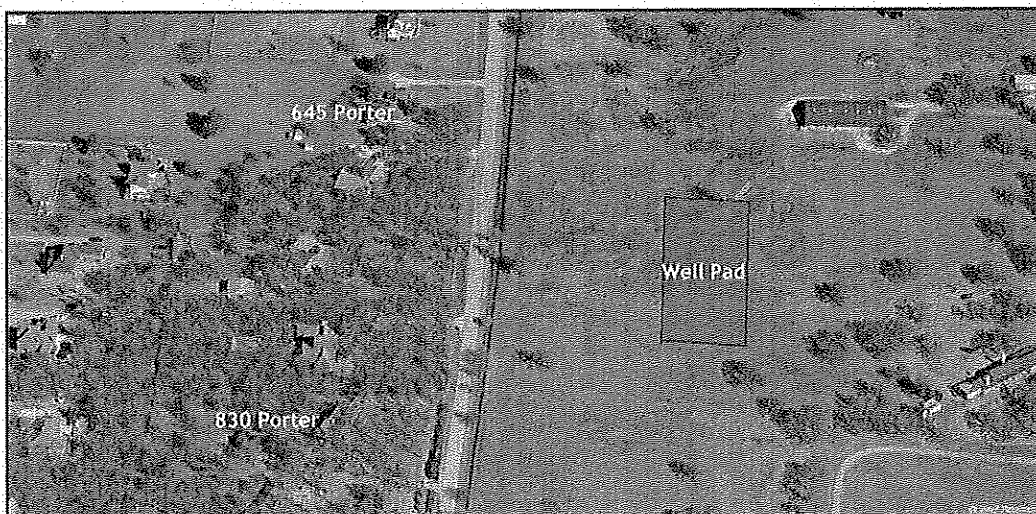
Concerning an active listing at 830 Porter Road, Bartonville, Texas: The house is a unique and spacious home and on a heavily-treed tract across from an active drill site on Porter Road. At the time of our inspection in July of 2010, temporary sound walls were up and a drilling rig in place on the site. Ms. Summers noted that she has had great difficulty selling the house since drilling on the site has been going on for an extended period. She lives next door and said the site is loud and gives off an odor. She plans to lower the list price for the property but did not disclose by what amount.

### Tracy Clifton, Agent

Concerning an active listing at 645 Porter Road, Bartonville, Texas: The house is a 3,000 square foot residence on two acres and is listed for \$275,000, down from \$295,000. Ms. Clifton noted that the house is not of particularly high quality but the land value in the area is quite high. She indicated that buyers in this price range are more selective. She expects interest in the property to pick up once drilling is complete and the compressor planned for the site is in a finished building. According to Ms. Clifton, buyers do not want to see or hear well sites.

### Vickie Farris, Agent

Concerning the sale of 5804 Southern Hills Dr., Flower Mound, Texas: The house is located over 1,600 feet from the well site. Ms. Farris noted that at the time of sale in August of 2009, the site could be heard from this house and the lights could be seen over the treetops at night. However, no buyers ever mentioned that the site was an issue and the house sold for market value according to her. She noted that while drilling and fracturing is going on it is difficult to sell a house.



**Mary Bailey, Agent**

Concerning the sale of 8904 Baltusrol Dr., Flower Mound, Texas: This was a foreclosure. The location of the drill site was never an issue but the condition of the property was since it had a bad floor plan that would need to be redesigned. No potential buyers ever mentioned the drill site or the compressor station. Most houses have a tree buffer in this area. The agent felt that while drilling is going on it is difficult to sell a property but after truck traffic dies down there is no affect. She believes the impact of gas wells has been hyped.

**Kristen Dailey, Agent**

Concerning the sale of 8904 Baltusrol Dr., Flower Mound, Texas (shown in Sales Comparison section): The buyer knew the drill site was present. The compressor station can be seen through the trees and some from the second floor but it was not highly visible. The site cannot be heard according to her, the selling agent. It was not a factor in the sale of the property since the biggest concern was the remodel that needed to be done.

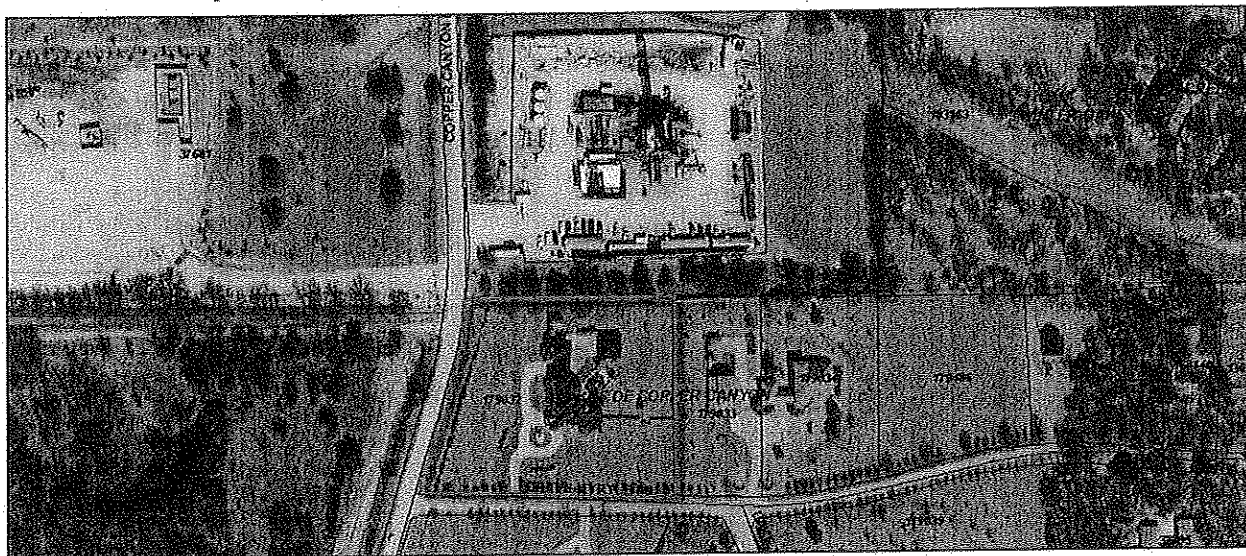
Ms. Dailey feels that especially when people are moving to the area from eastern areas of the Metrolpex the drill sites are a major concern. She deals mostly in the Southlake area and several clients have told her they did not want to be shown property in an area where a site was being considered. She has not sold any houses adjacent to well sites.

Ms. Dailey lives in Lantana and no drill sites can be seen now from the community in her estimation. However, when they were being drilled and the fracturing was going on, it was noisy and the off-gasing could be seen at night. According to Ms. Dailey it is a concern for herself and many people in the community but residents are hesitant to move because of the nice location and the schools.

**Adrian Verdin, Agent**

Concerning the sale of 1155 Crepe Myrtle Lane, Copper Canyon, Texas: This 6,300 square foot house was a foreclosure. It sold for \$407,500 in April of 2010 because of its poor condition. People did not care about the well because it was such a good deal. It was originally listed for \$800,000 and before that was a \$1.2 million house. Mr. Verdin said some people mentioned the well but it was not a major factor in this sale.

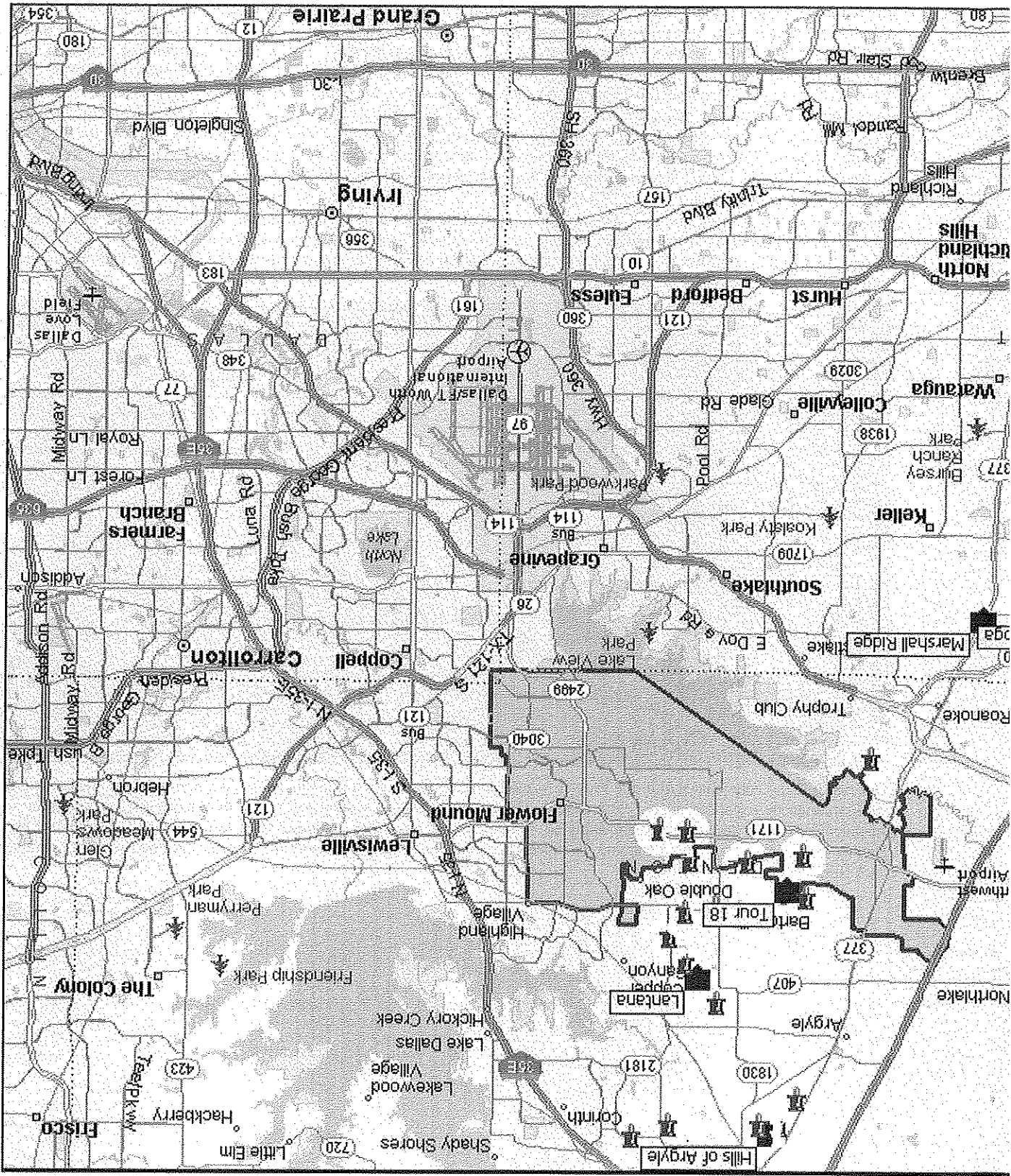
Below is an aerial depiction of the house at 1155 Crepe Myrtle and the neighboring well site, circa 2009.



In Mr. Verdin's experience, properties in the Flower Mound area are a little more difficult to sell when they are adjacent to a well because it is an eyesore. He overcomes this by noting that the well will eventually be capped and will no longer be noticeable. He considers well impact to be comparable to the impact of proximity to a major street. It has increased traffic and noise so expect an additional six months for marketing time and drop the price about 10%.

**Ethan, Representative with Centex Homes in Trophy Club**

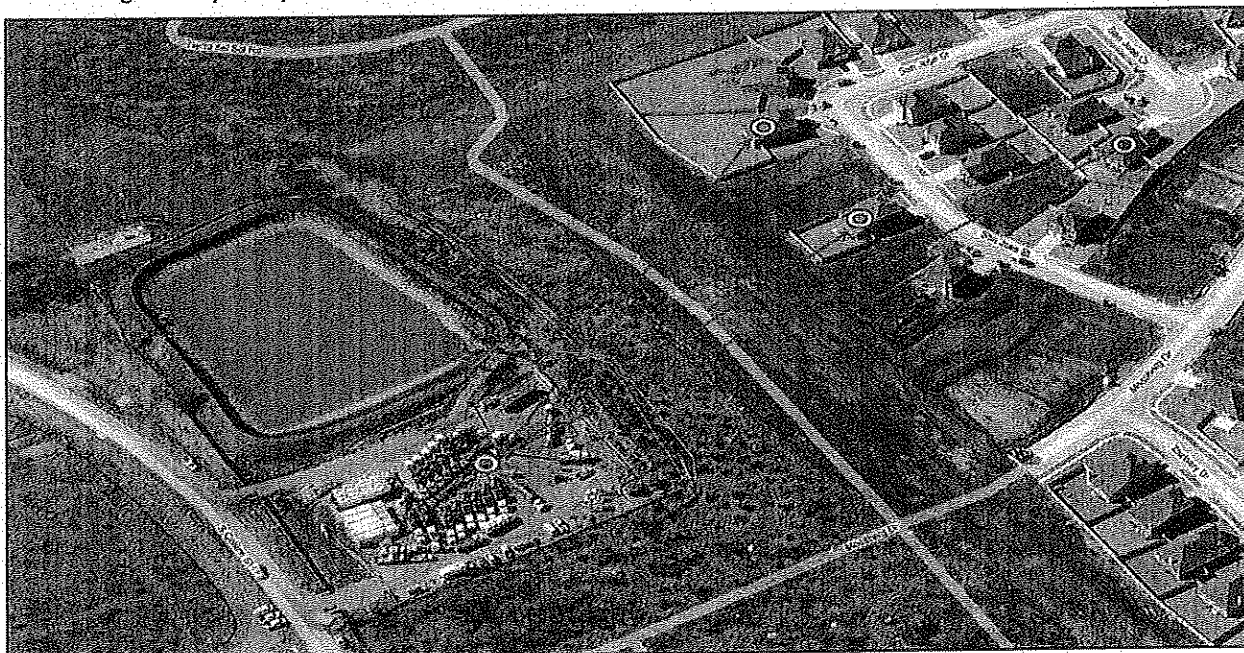
The representative stated that Centex Homes does not market the houses adjacent to the Trophy Club well site or any other well site in the area for any less simply because they back up to a well. Drilling is complete and there is no activity in the area. However, we found one Centex house adjacent to a well that indicated a diminution in value.





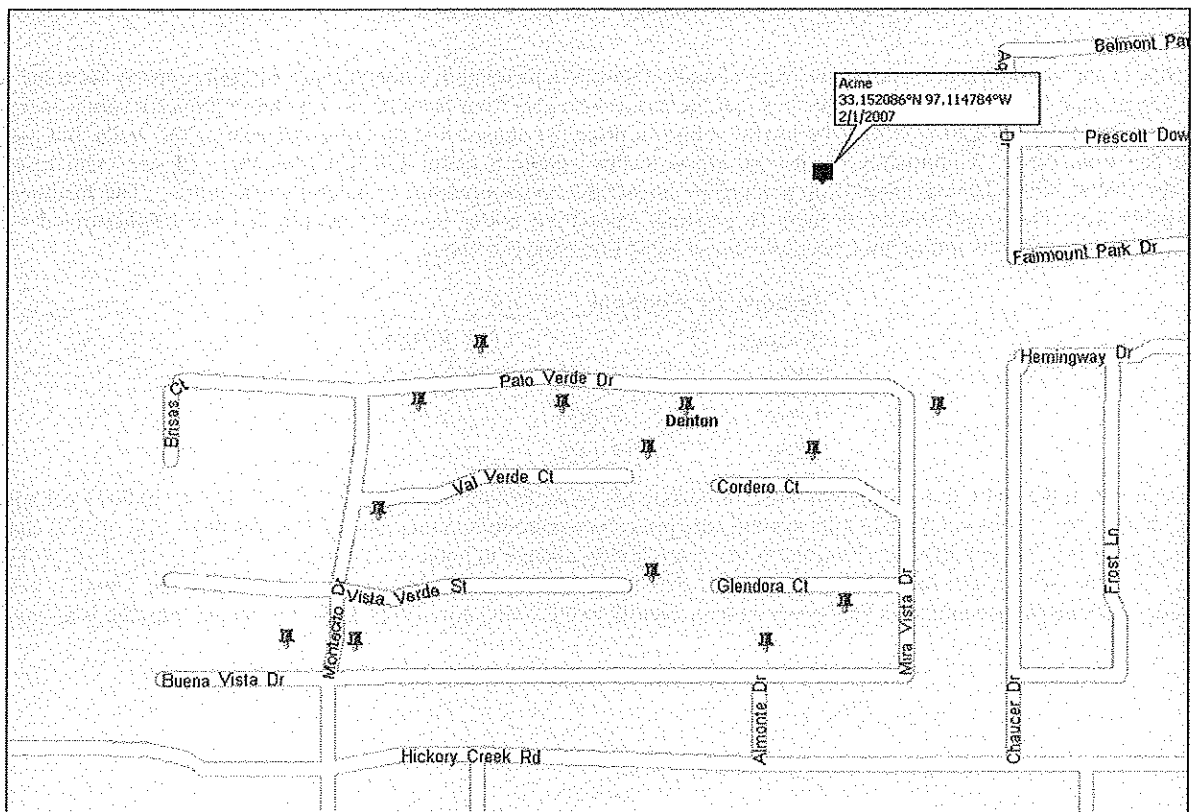
## PRICE-DISTANCE RELATIONSHIP

In an attempt to quantify the impact of well site proximity on residential properties, we began by searching out well sites in the Flower Mound area. We found that because so few transactions have transpired that are adjacent to well sites, a more generalized approach is necessary for such an immature natural gas market. We began by searching for existing wells in Flower Mound Area. We determined the drilling start date (commencement or "spud" date), utilizing Texas Railroad Commission records. Excluding distressed sales such as foreclosures, we collected data on market transactions that occurred in relatively homogenous neighborhoods around well sites to avoid wide variations in the year of construction, design standards, etc. We then measured from the rooftop of the house to either the center of the well site pad or to the well head, if visible, by aerial photography. Where possible, we utilized GIS software to "geocode" the addresses of the sales and measure the distance to well head coordinates. We then assembled tables with the price per square foot of the houses in the neighborhood and the linear distance in feet to the well site. Utilizing graphing software, we then derived a scatter-plot from that data with the distance on the X-axis and price per square foot on the Y-axis. Following which, a linear trend line was applied through the data, which utilizes the sum of least squares method to reduce the variance between points in the data sample. This method allows for a visual representation of the trend in home prices as distance from the well increases. The rate of change in the price by distance can then be observed.



Our research indicates that within the Flower Mound Market, there is a marginal change in value between houses nearer the well site than those farther away. Few wells in the Town of Flower Mound have been in existence long enough or are in sufficient proximity to residences for analysis. Therefore, we have also analyzed sales in other parts of southeast Denton County such as Argyle, Copper Canyon, and Denton, as well as Trophy Club and Fort Worth. Summaries of our findings in each subdivision/well site follow.

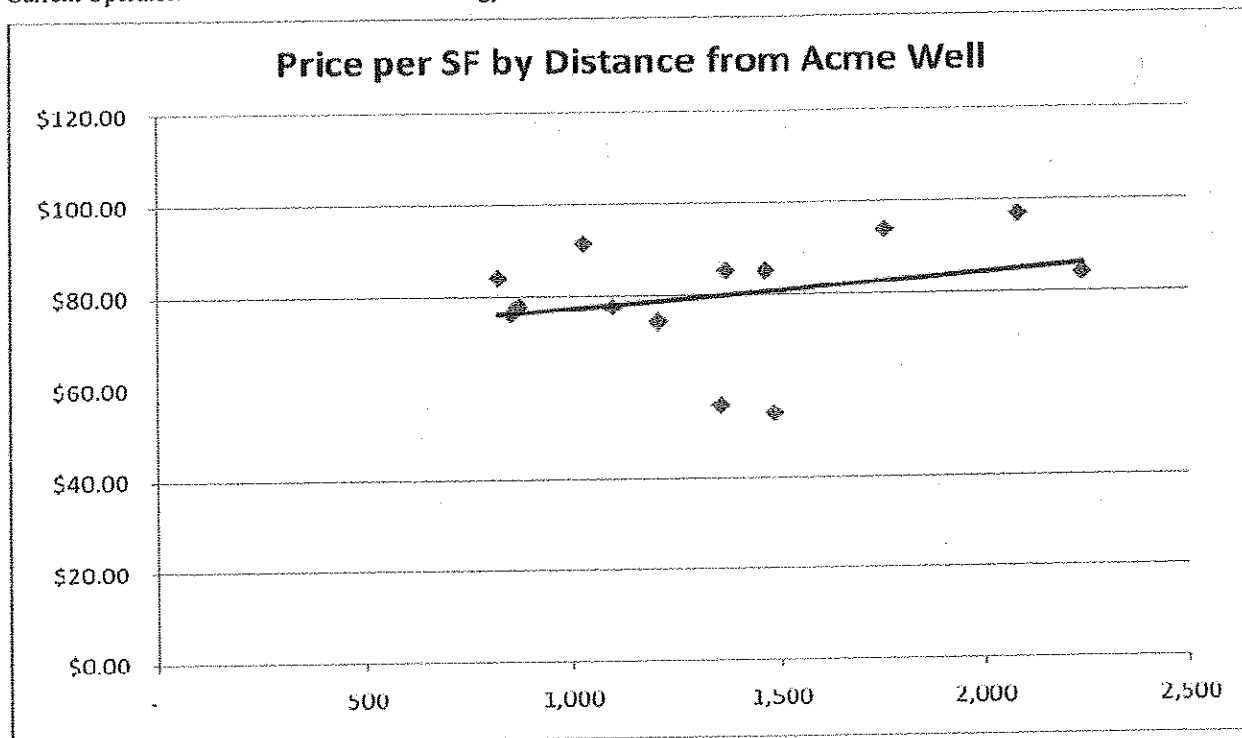
## ACME WELL SITE



Acme Drill Site and Neighborhood Sales, Denton, Texas



Location Description: South of Ryan Road and Duffy Way in Denton, Texas  
 Latitude and Longitude: 33.152086,-97.114784  
 Visible Facilities: Four natural gas wells, eight storage tanks, in-ground water reservoir  
 Drill Commencement Date: 2/01/07  
 Current Operator: Endeavor Energy Resources, L.P.



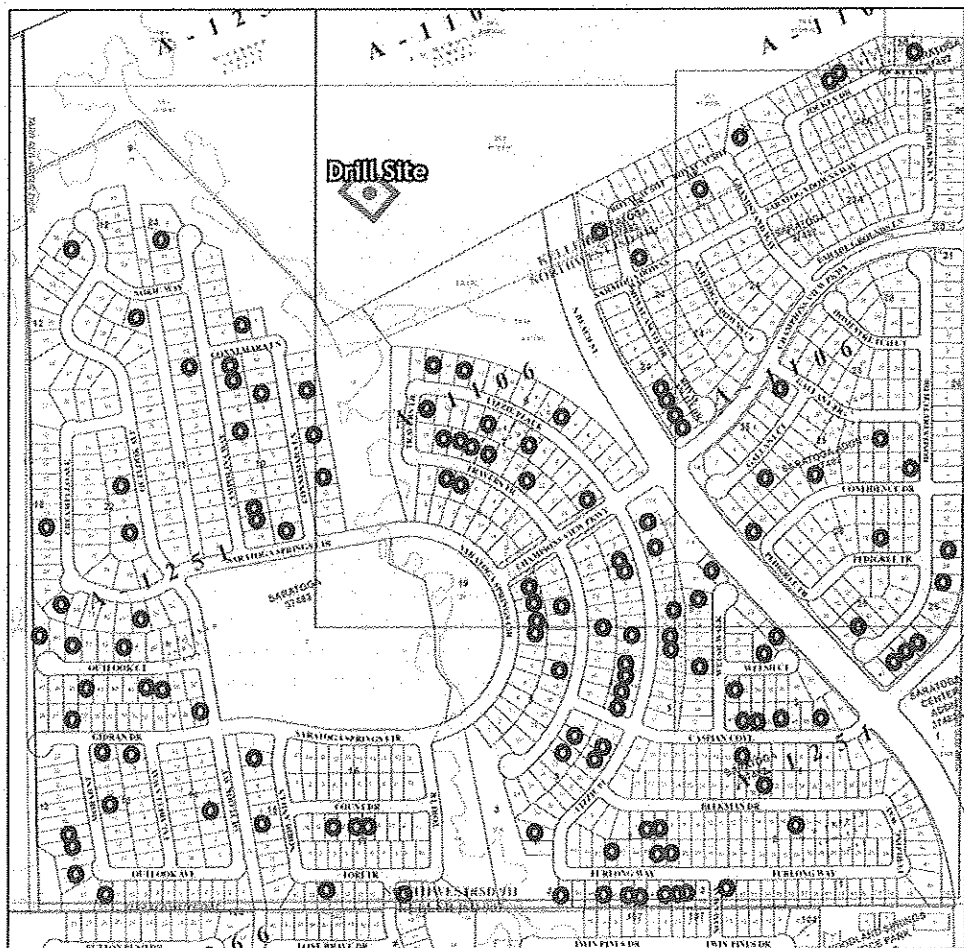
The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values increase. However, it is interesting to note that the lowest values in price per square foot do not occur nearest the wells, but around 1,500 feet from them. Additionally the nearest house in this sample is about 870 feet from the well site. Our research indicates that at some distance, there is no perceptible impact due to the presence of natural gas facilities. The facilities are not visible from the neighborhood as there is a natural vegetative buffer between the site and the neighborhood. The following chart represents information about the linear trend line observed above.

**Distance Relationship**

Average		\$79.81
500'	-4.44%	(\$3.55)
1,000'	-8.89%	(\$7.09)
2,000'	-17.77%	(\$14.18)

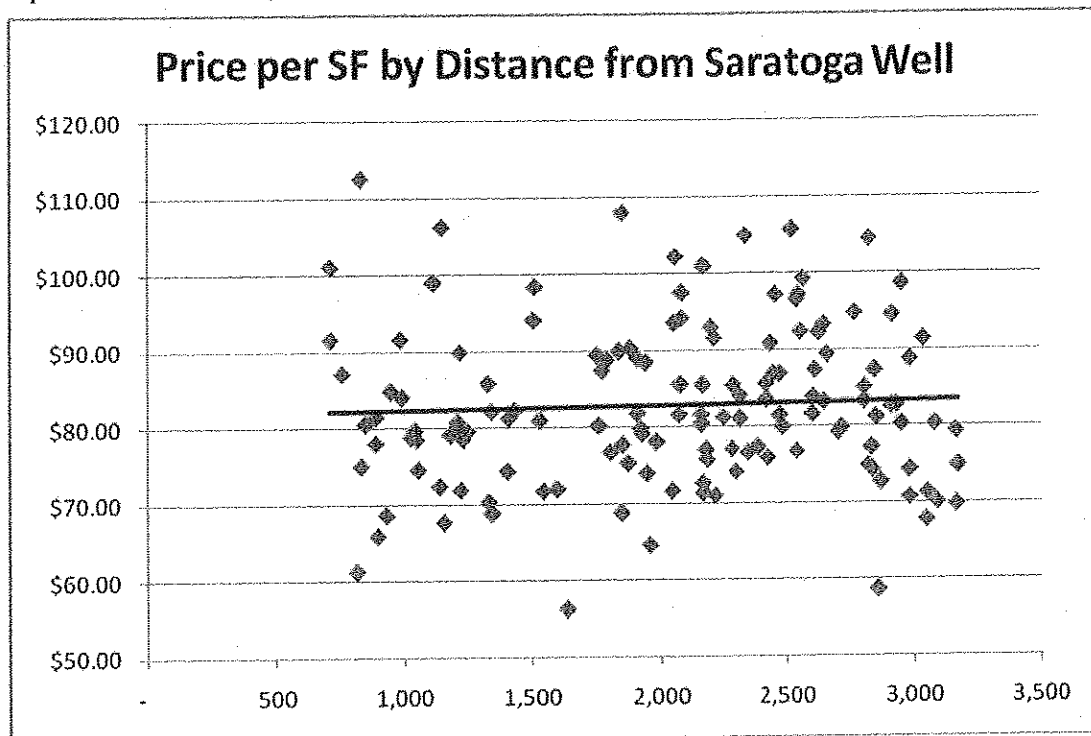
The trend line in the chart above indicates a rate of change for every foot of proximity to the well site of  $-\$0.0071$  per square foot of house size. When compared to the average sale price per square foot in this sample, this translates into  $-4.44\%$  change in value for every 500 feet distance from the well, or an  $-8.89\%$  change in value at 1,000 feet. Alternatively, it is an  $-\$7.09$  change in value per square foot of living area at 1,000 from the well site. In this case, it appears the trending pattern increases in variance (becomes less dependent upon proximity to the wells) after about 1,300 linear feet from the well site.

ALLIANCE-SARATOGA SITE



Alliance-Saratoga Site and Neighborhood Sales, Fort Worth, Texas

Location Description: South of SH 170 between Old Denton Rd. and Alta Vista in Fort Worth, Texas  
 Latitude and Longitude: 32.962841,-97.28917  
 Visible Facilities: At least five natural gas wells, six storage tanks, meters and dehydrators, one gas lift station  
 Drill Commencement Date: 9/24/2004  
 Current Operator: Quicksilver Resources



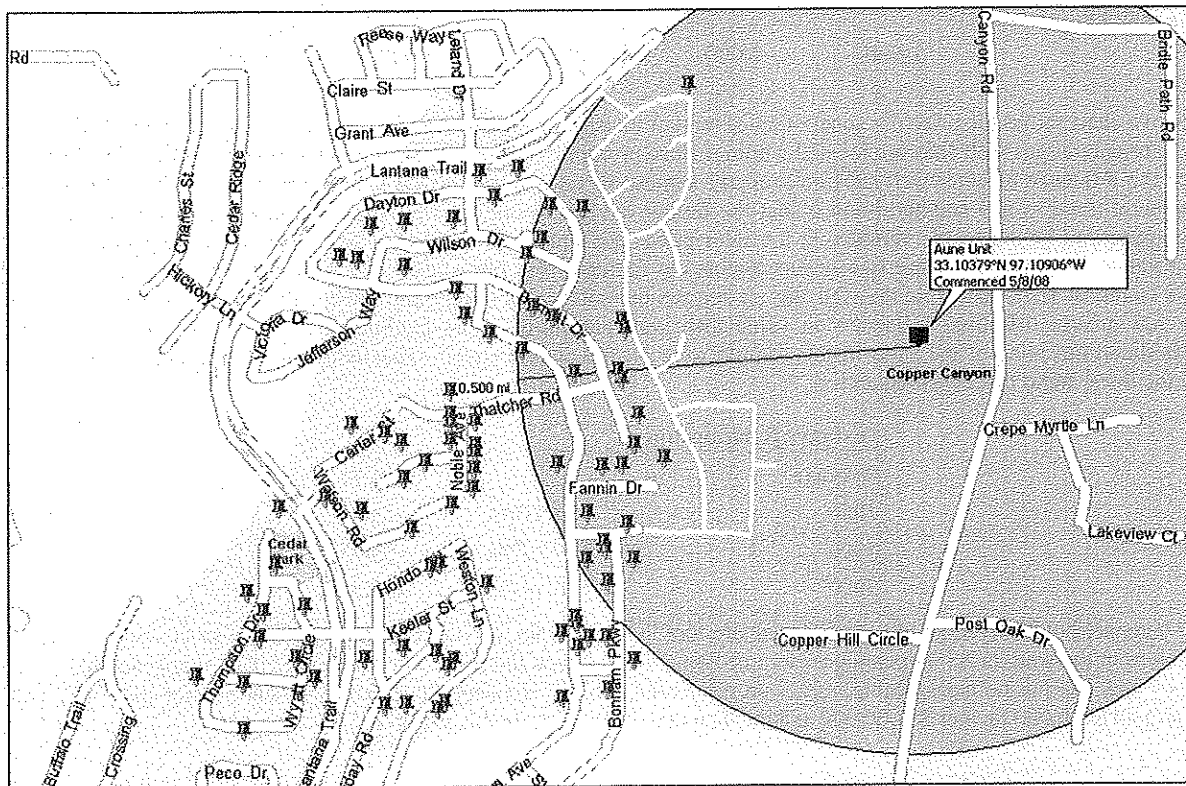
The above chart shows the relationship between the price per square foot of single-family properties in the Saratoga neighborhood. The general trend is that the farther the property is from the well site, the greater the property value. However, the increase in value is slight and there is a wide variance in sale prices. The following chart represents information about the linear trend line observed above.

**Distance Relationship**

Average		\$82.92
500'	-0.31%	(\$0.26)
1000'	-0.62%	(\$0.51)
2000'	-1.23%	(\$1.02)

The rate of change observed in the trend line above is -\$0.26 per 500 feet of proximity to the well site. That is to say, based on the above data, the price per square foot of a house is expected to change by -\$0.51 per square foot of a house size at 1,000 feet of distance from the well site. In the sample above, variance in the above data appears to be introduced almost immediately with the highest unit value being one of the sales closest to the site and several of the lowest being midway to farthest from the site. This would indicate there is no measurable impact on the value of surrounding homes.

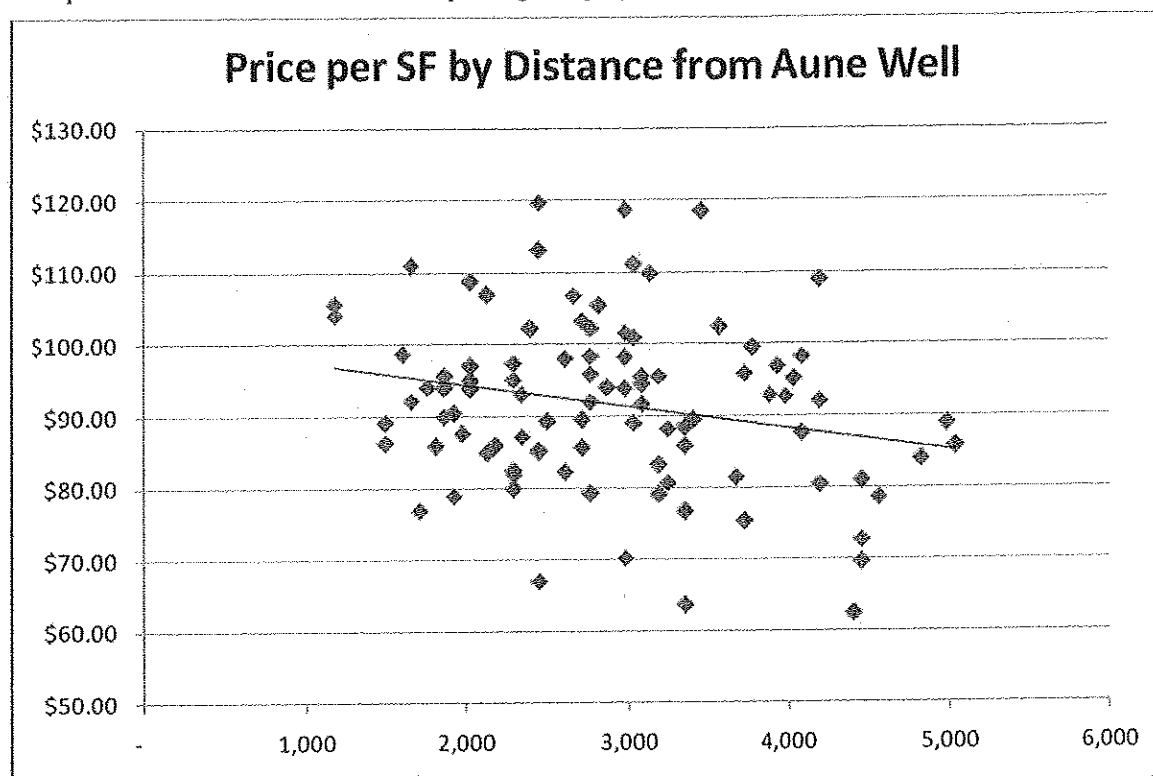
## AUNE WELL SITE (LANTANA)



*Aune Site and Neighborhood Sales, Argyle (Lantana), Denton County, Texas*

*The Aune Site is indicated by a half-mile radius in blue. The yellow rings indicate half-mile radii from other well sites.*

Location Description: West of Copper Canyon Road, North of Crepe Myrtle Ln., Argyle Texas  
 Latitude and Longitude: 33.103788,-97.109053  
 Visible Facilities: One natural gas well, filter/seperator unit, unidentified structure  
 Drill Commencement Date: 5/8/08  
 Current Operator: Red Oak Gas Operating Company, L.P.



The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. Four natural gas well sites are located within a close proximity to the Lantana master-planned subdivision. In order to reduce the influence of other well sites on property values, no sales were utilized within a half-mile radius of other wells. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *decrease*. There appears to be a sizeable variance in the sales prices per square foot of living area. It is interesting to note that the lowest values in price per square foot occurs almost the farthest from the Aune Unit. However, the nearest house in this sample is almost 1,200 feet from the well site. It appears that either this sample lies outside that range impact or some other factor has greater offsetting influence on value than well proximity. The facilities are visible from the edges of the neighborhood but none of the sales in this sample were on the closest street. The following chart represents information about the linear trend line observed above.

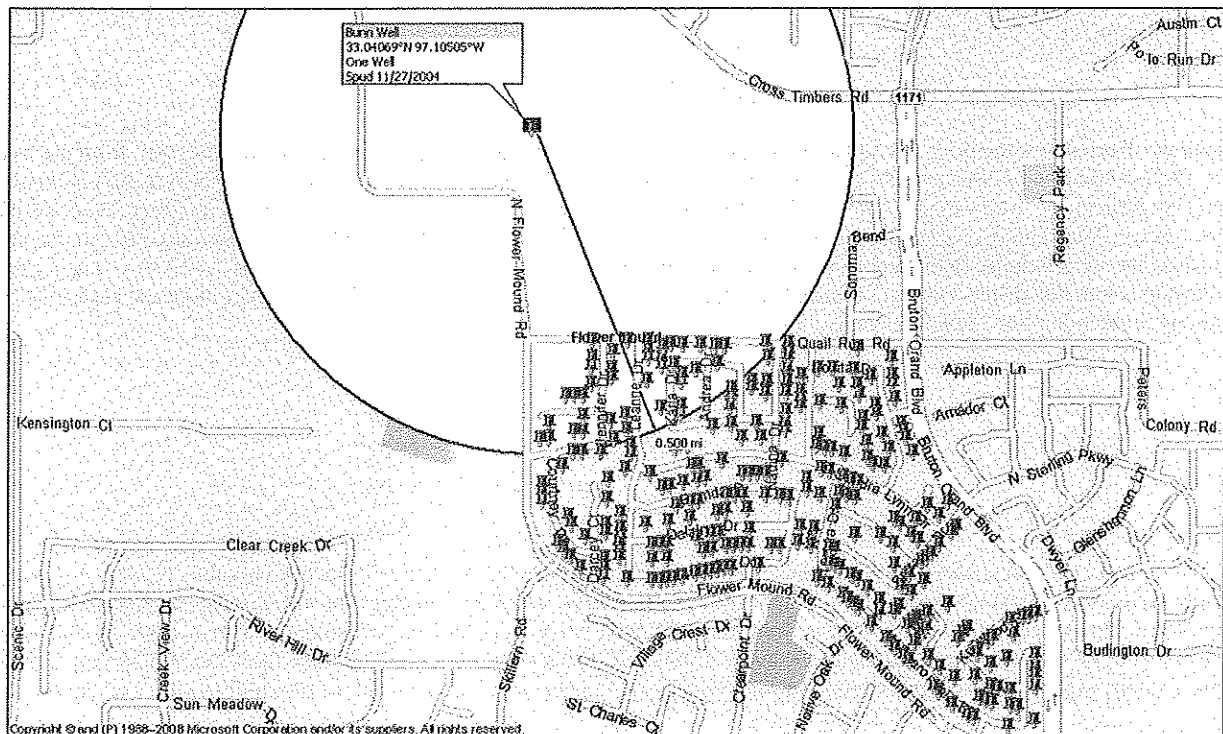
#### Distance Relationship

Average		\$91.71
1000'	3.316%	\$3.04
3000'	9.949%	\$9.12
5000'	16.581%	\$15.21

When compared to the average sale price per square foot in this sample, we observed a 3.316% change in value at 1,000 feet distance from the well, or \$3.04 per square foot of living area. Given the broad variance in the data, it appears that distance from the well site has no measureable impact on residential values. Housing values in the Lantana community vary widely from around \$200,000 to over \$1,000,000 and the data may be picking up this variation.

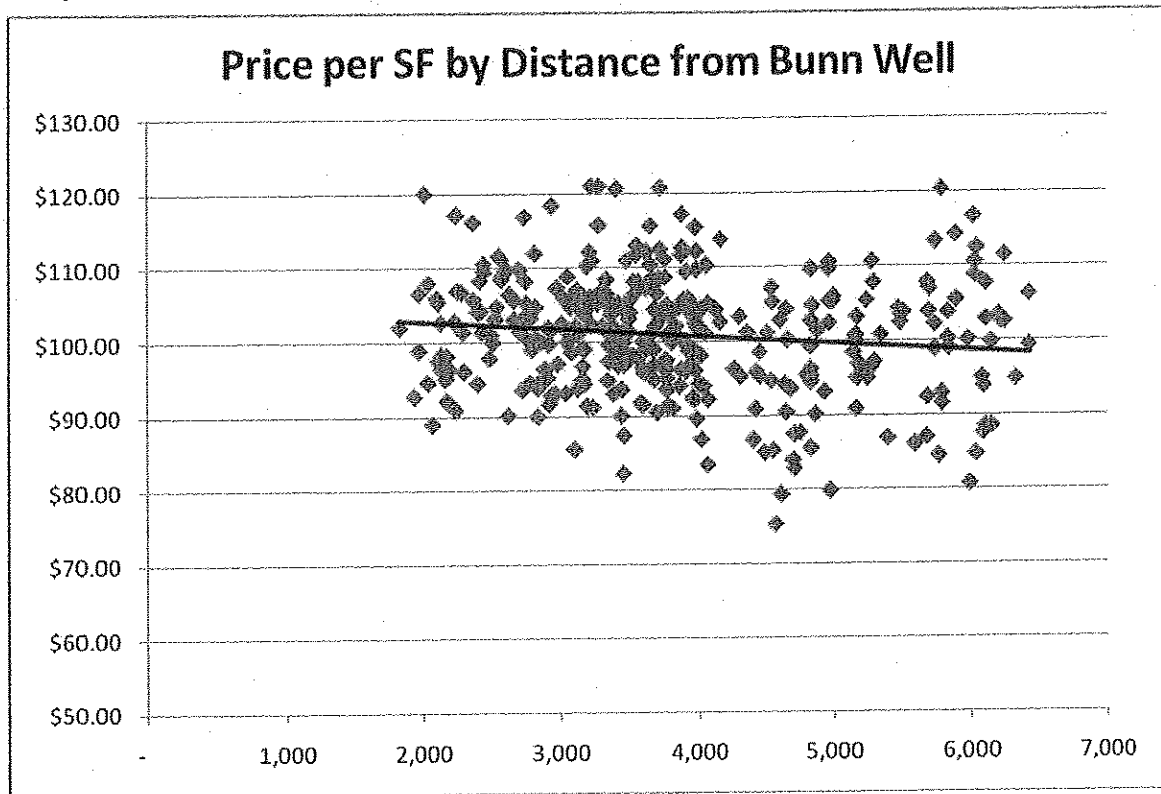


BUNN WELL SITE (WELLINGTON ESTATES)



*Bunn Well Site and Wellington Estates Sales, Flower Mound, Denton, Texas  
Yellow circle represents a half-mile radius*

Location Description: Northeast of Flower Mound Rd., North of Quail Run, Flower Mound, Texas  
 Latitude and Longitude: 33.040666,-97.105079  
 Visible Facilities: One natural gas well, two storage tanks, one lift station, metering station  
 Drill Commencement Date: 10/03/2004  
 Current Operator: Williams Prod. Gulf Coast, L.P.



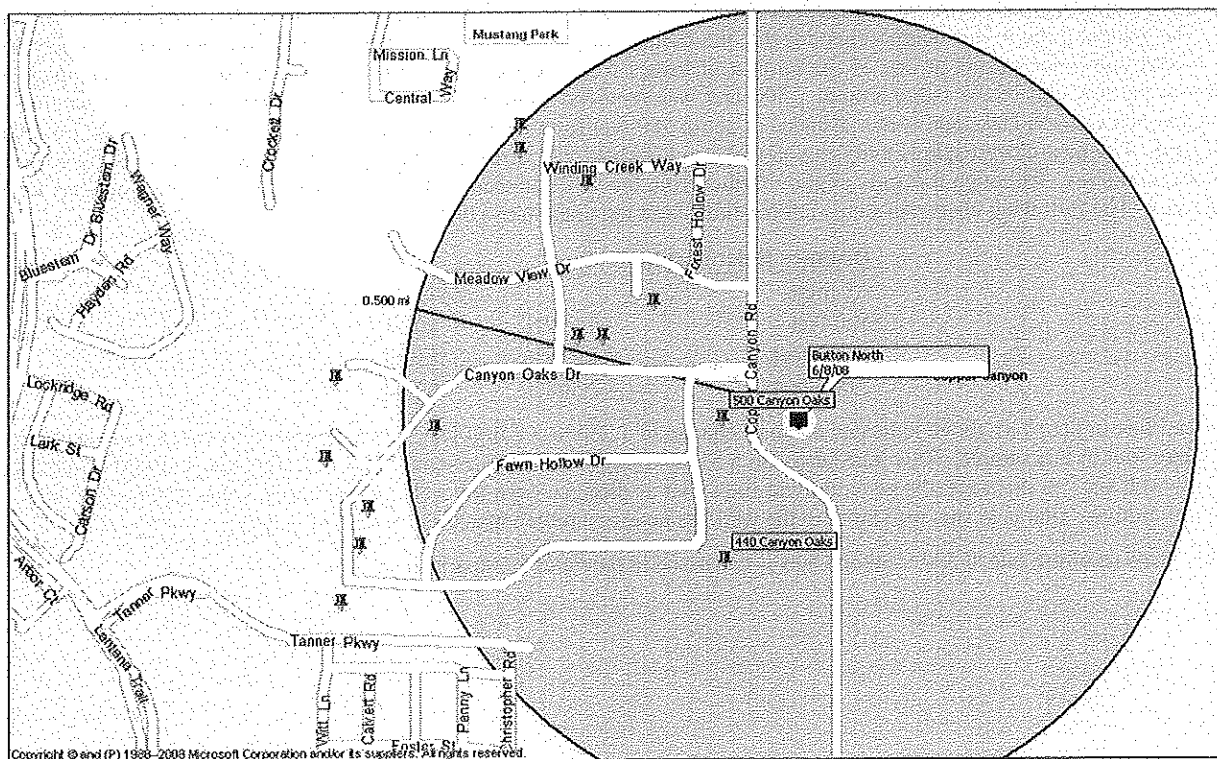
The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *decrease*. The sales nearest the well range from \$88.97 to \$120.00 per square foot so there is a good deal of variance even for the nearest sales. Additionally, sales with the lowest values occur over 4,000 feet from the well. The downward trend in the data indicates that the proximity to the well is inconsequential at this distance. The sale nearest the well is 1,827 feet. The logical conclusion is that this distance is too far from the neighborhood to impact values. The following chart represents information about the linear trend line observed above.

**Distance Relationship**

Average		\$100.87
1000'	1.02%	\$1.03
2000'	2.05%	\$2.06
5000'	5.12%	\$5.16

The trend line in the above charts indicates that proximity to the well site has a positive influence on value. That is not to say that the well site contributes positively but that houses in that area are more valuable, for any number of reasons. When compared to the average sale price per square foot in this sample, we observed a 1.02% change in value at 1,000 feet distance from the well, or a \$1.03 change in value for every 1,000 feet of distance. The trend pattern from the Wellington Estates (nearest subdivision to well) neighborhood indicates there is no impact on value as a result of proximity to the well site.

### BUTTON WELL SITE (CANYON OAKS SUBDIVISION)

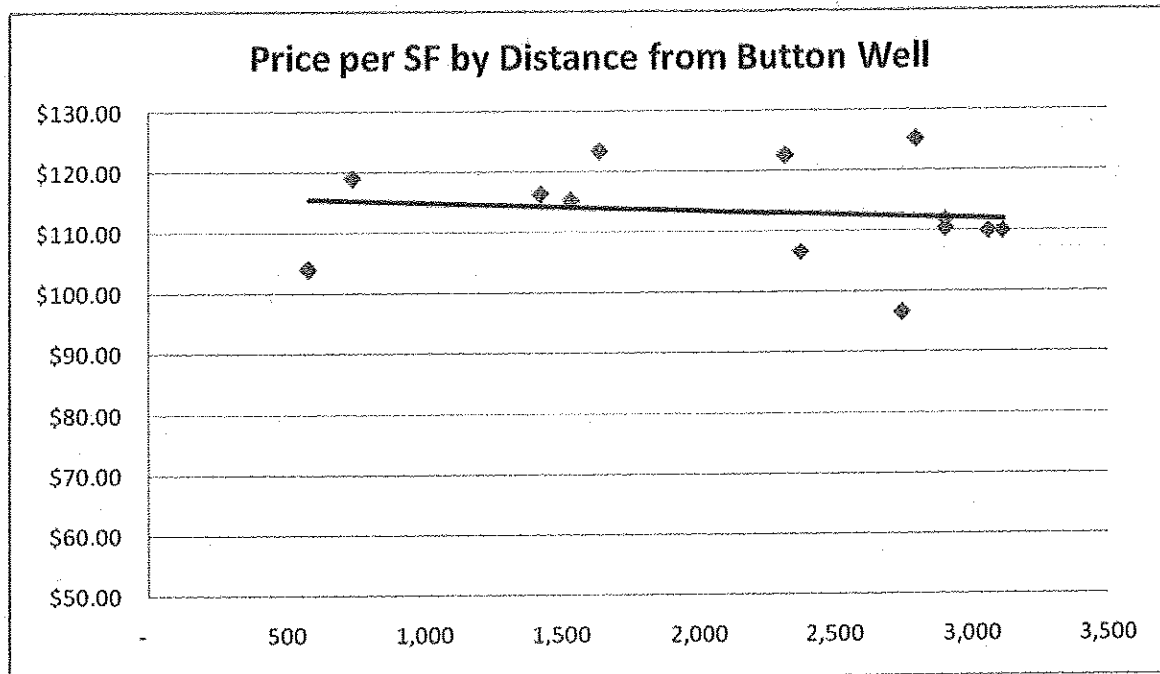


*Button Well Site and Canyon Oaks Sales, Argyle, Texas*

Blue circle represents a half-mile radius from the well. Yellow represents half-mile radius from neighboring well.



Location Description: Southeast of intersection of Copper Canyon Rd. and Canyon Oaks, Copper Canyon, Texas  
 Latitude and Longitude: 33.080768,-97.108989  
 Visible Facilities: Two natural gas wells, unidentified structure  
 Spud Date: 6/14/2008  
 Current Operator: Red Oak Gas Operating Company, L.P.



The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values decrease. The lowest unit value occurs at one of the farthest distances from the well. One sale that appeared to be an unexplained outlier at the low end of the range around 2,500 feet was removed from the dataset. The nearest house in this sample is located at 500 Canyon Oaks and is at a distance of about 580 feet from the well site. It has a direct view of the site from the back yard. The next closest sale is 440 Canyon Oaks and is about 740 feet from the site. It is shaded from view by a series of fences and trees. Although it is only slightly farther from the well site than 500 Canyon Oaks, its sale price appears to be unaffected. The following chart represents information about the linear trend line observed above.

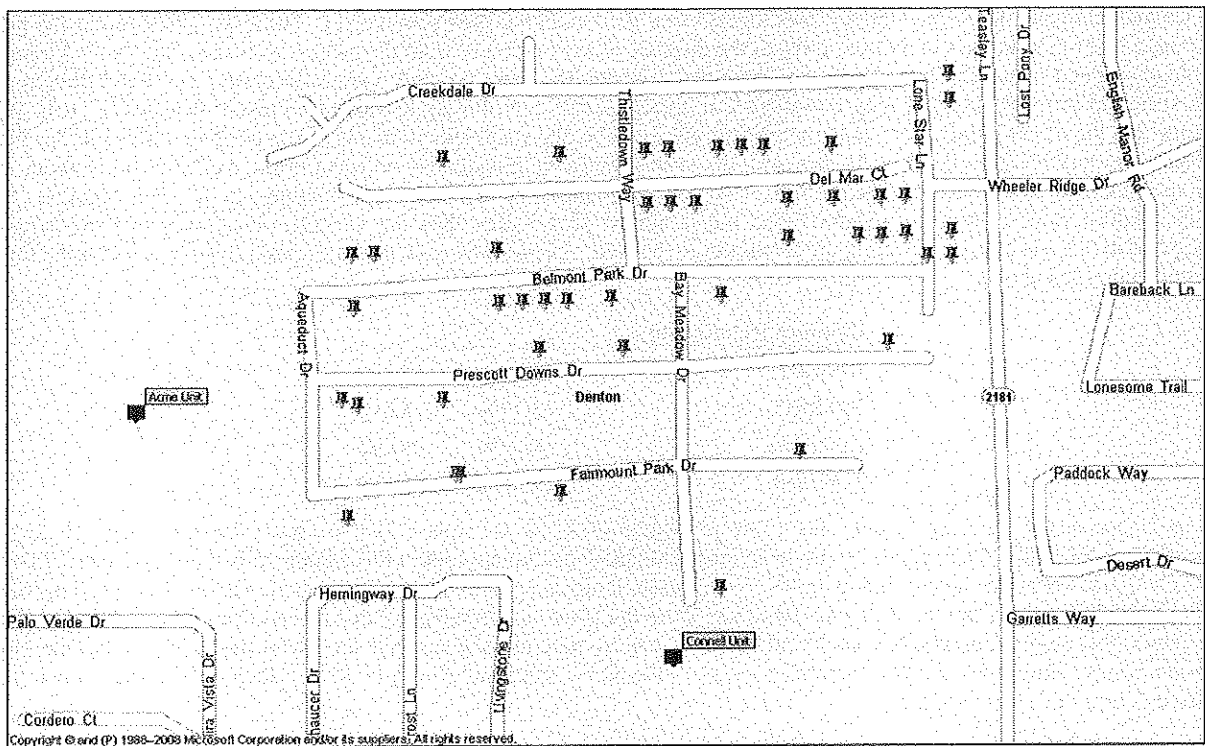
**Distance Relationship**

Average		\$113.25
500 feet	0.627%	\$0.71
1,000 feet	1.254%	\$1.42
2,000 feet	2.508%	\$2.84

The trend line in the chart above indicates a rate of change of 1.254% at 1,000 feet, when compared to the average sale price per square foot in this sample. This translates into a \$1.42 change in value per square foot of living area at 1,000 of distance from the well site. In this case, the general trend show that as distance from the well site increases, value decreases, which is counter-intuitive. That is to say, proximity to the well has no measurable impact on residential values.

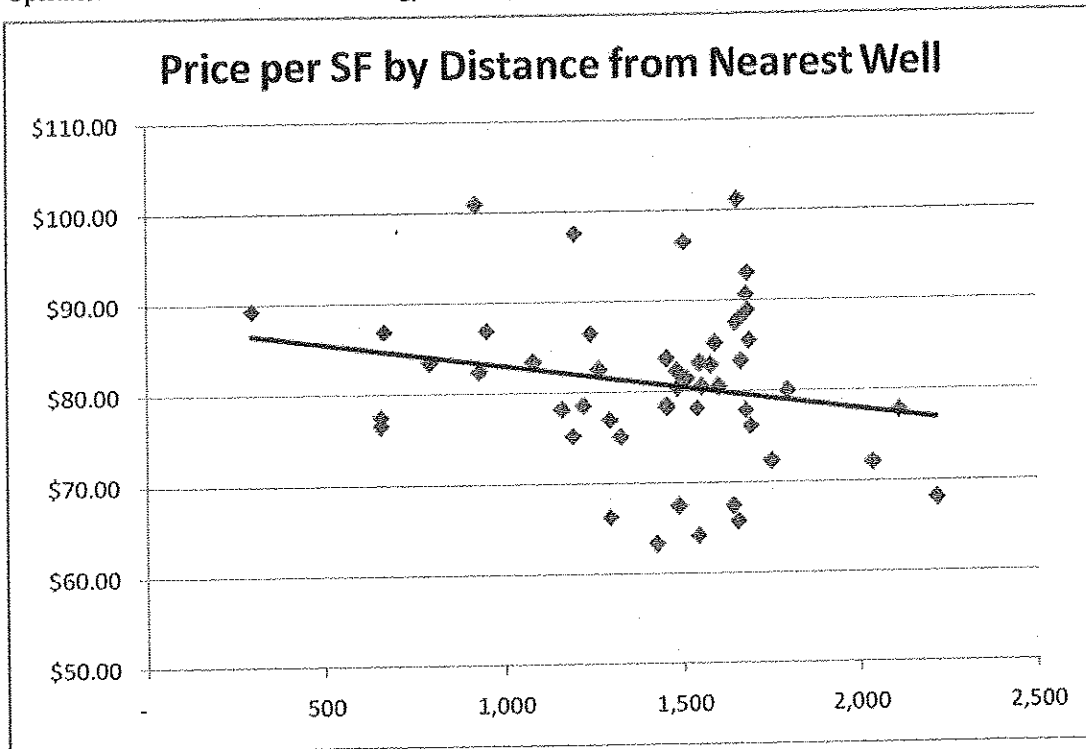
Further analysis of the sale at 500 Canyon Oaks is discussed in the Sales Comparison section.

## CONNELL WELL SITE (LEXINGTON PARK SUBDIVISION)



Connell Well Site and Lexington Park Sales, Denton, Texas

Location Description: Southern terminus of Bay Meadow Dr., Denton, Texas  
 Latitude and Longitude: 33.149901,-97.108926  
 Visible Facilities: One natural gas well, two storage tanks  
 Drill Commencement Date: 3/21/2003  
 Current Operator: Endeavor Energy Resources, L.P.



The Connell Unit and the Acme Unit are both located near the Lexington Park subdivision. The above chart shows the price per square foot of market transactions relative to the distance of each property from the nearest well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values decrease. The trend direction is quite strong in this sample, indicating that there is a notable factor contributing to value as a result of location. It is quite possible that the newer homes were constructed near the well site, the small lake in that area is a positive externality, or there is some other unforeseen influence. In this case, the nearest house is immediately adjacent to the well site and is about 295 from the well head to the center of the rooftop. This house also backs up to a small lake, making it a desirable location. It is not the highest value sale in the neighborhood but is almost 10% higher than the average. It appears that the location adjacent to the lake is at least offsetting the proximity to the well. The following chart represents information about the linear trend line observed above.

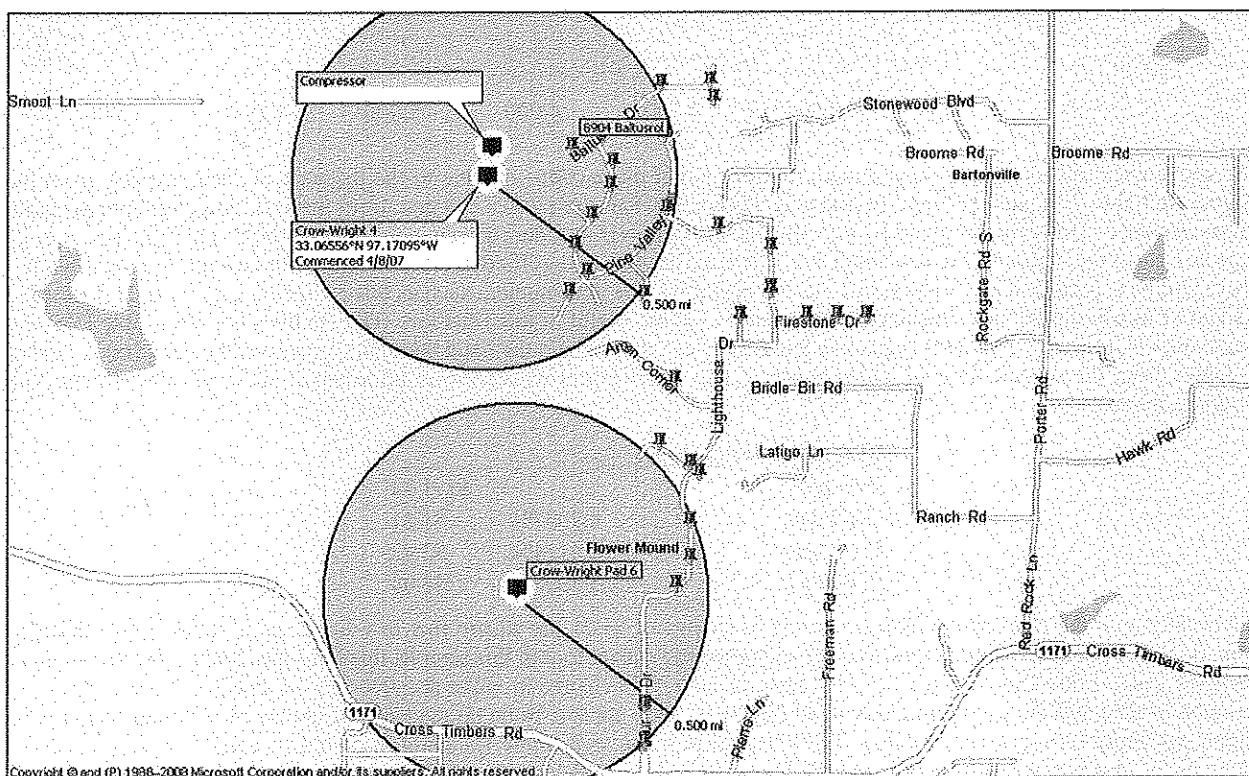
**Distance Relationship**

Average		\$80.99
500 feet	3.12%	\$2.52
1,000 feet	6.23%	\$5.05
2,000 feet	12.46%	\$10.09

The trend line in the chart above indicates a rate of change of \$2.52 per square foot of house size for every 500 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into 6.23% or \$5.05 change in value per square foot at 1,000. In this case, it appears the trending pattern increases in variance somewhere around 1,300 linear feet from the well site. However, since the trend pattern indicates that houses nearer the well have higher unit values, this observation is likely irrelevant. It is relevant to note that the Connell site was drilled in 2003 and therefore experiences very little truck traffic. However, access to the site is from Bay Meadow drive, which means trucks must pass the front door of the nearest house.

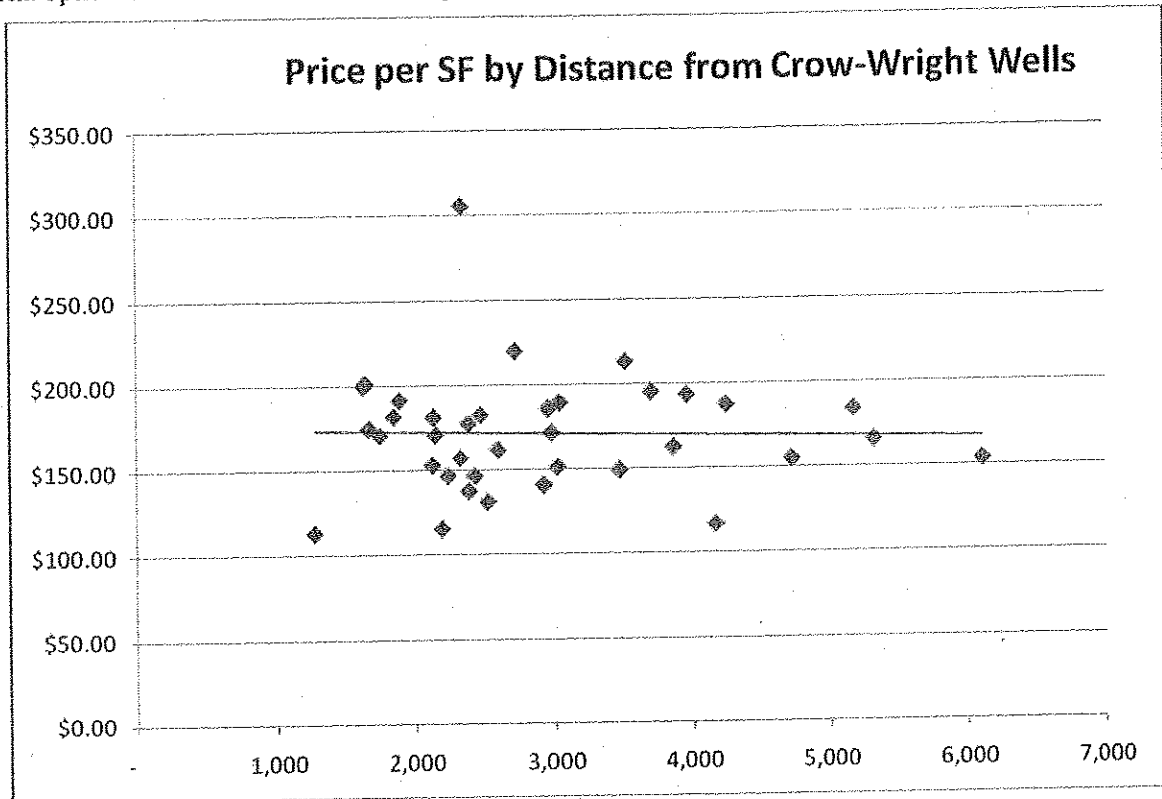
The most recent sale of 4316 Bay Meadow Drive is further discussed in the sales comparison section.

**CROW-WRIGHT SITE (TOUR 18)**



*Crow-Wright Well Sites and Tour 18 Sales, Flower Mound, Texas  
Blue circles represent a half-mile radius around the wells  
Point A in the aerial map represents the well head at Pad Site 4*

Location Description: West of Tour 18 Golf Course, North of FM 1171, Flower Mound, Texas  
 Latitude and Longitude: Pad 4 - 33.065563,-97.170952, Pad 6 - 33.050354,-97.169611  
 Visible Facilities: Three natural gas wells, metering station, compressor station, and related structures  
 Drill Commencement Date: Pad 4 - 4/8/07, Pad 6 - 2/26/08  
 Current Operator: Red Oak Gas Operating Company, L.P.



The above chart shows the price per square foot of market transactions relative to the distance of each property from the nearest well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *decrease*. However, the trend is very slight and variation is introduced even in the nearest sales. This variance is to be expected given the nature of the development. It is a master-planned golf course community with custom, high-end homes. There will be a great deal of variation in sizes and amenities in a development such as this. Therefore, one would expect the method of measuring the price-distance relationship to be less useful in this situation. The facilities are not visible from the neighborhood as there is a natural vegetative buffer between the site and the neighborhood. However, the compressor station is visible from the second floor of a few houses. The following chart represents information about the linear trend line observed above.

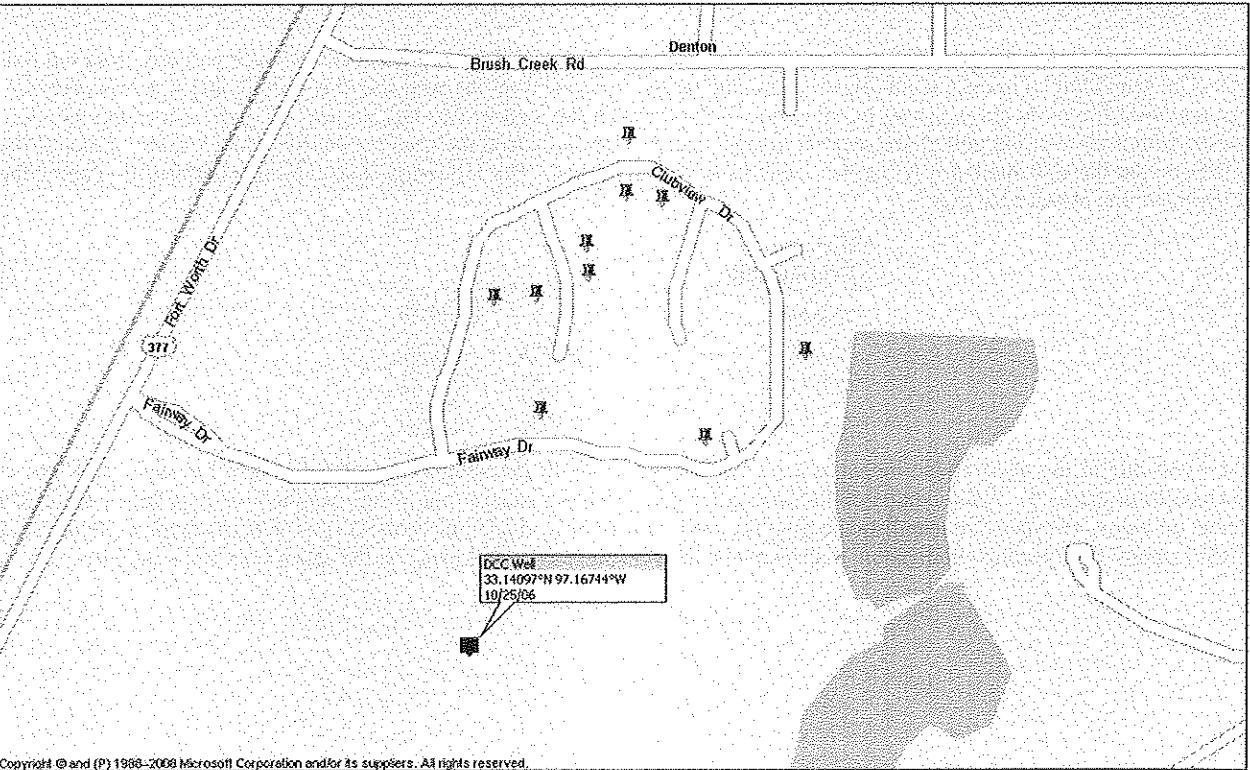
#### Distance Relationship

Average		\$171.14
1,000 feet	0.7057%	\$1.21
2,000 feet	1.4114%	\$2.42
5,000 feet	3.5285%	\$6.04

The trend line in the chart above indicates a rate of change of \$1.21 per square foot of living area at 1,000 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into -.7057% change in value for every 1,000 feet distance from the well, or an 1.41% change in value at 2,000 feet of distance. Given the wide variation of data and the counterintuitive trend direction, there appears to be no evidence of impact of well and compressor station proximity on residential values. The house nearest the well, 8904 Baltusrol, has sold recently. According to the listing agent, it was a foreclosure sale and the house must be remodeled. Buyers did not indicate the proximity to the well facilities or compressor station were factors in consideration for the purchase. This sale is further discussed in the sales comparison section.



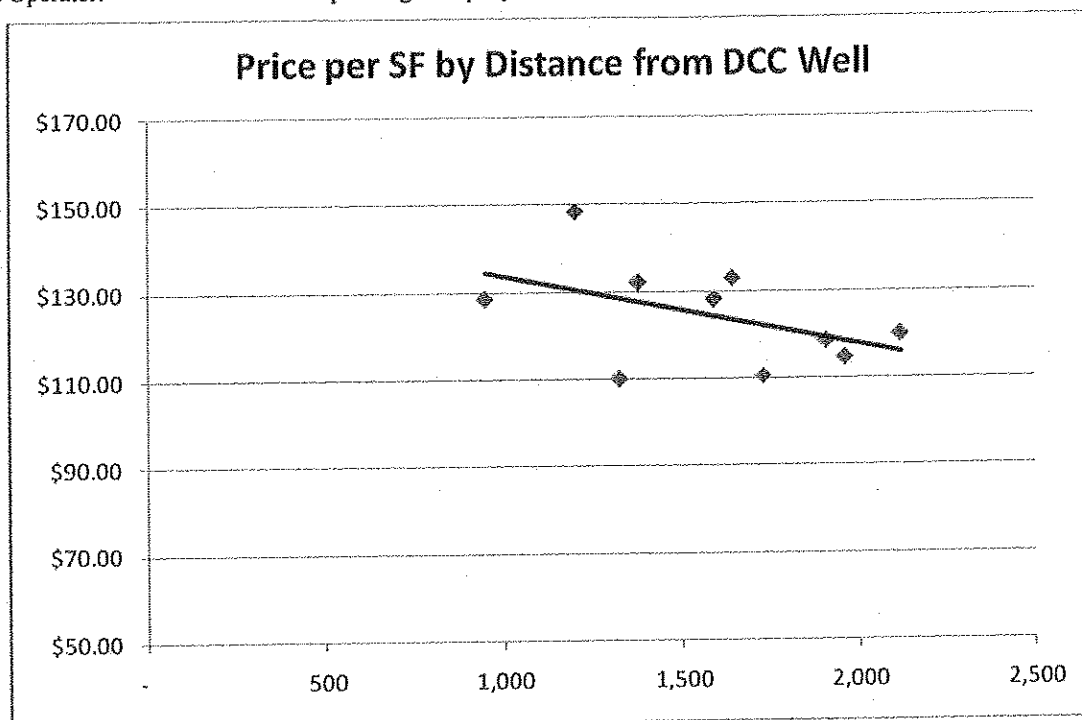
DENTON COUNTRY CLUB WELL SITE



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DCC Well Site and Neighborhood Sales, Denton, Texas

Location Description: Southeast of Fairway Dr. and SH 377, North of Country Club Rd., Denton, Texas  
 Latitude and Longitude: 33.140799,-97.167425  
 Visible Facilities: Three natural gas wells, three storage tanks, metering stations  
 Drill Commencement Date: 10/25/2006  
 Current Operator: Dune Operating Company

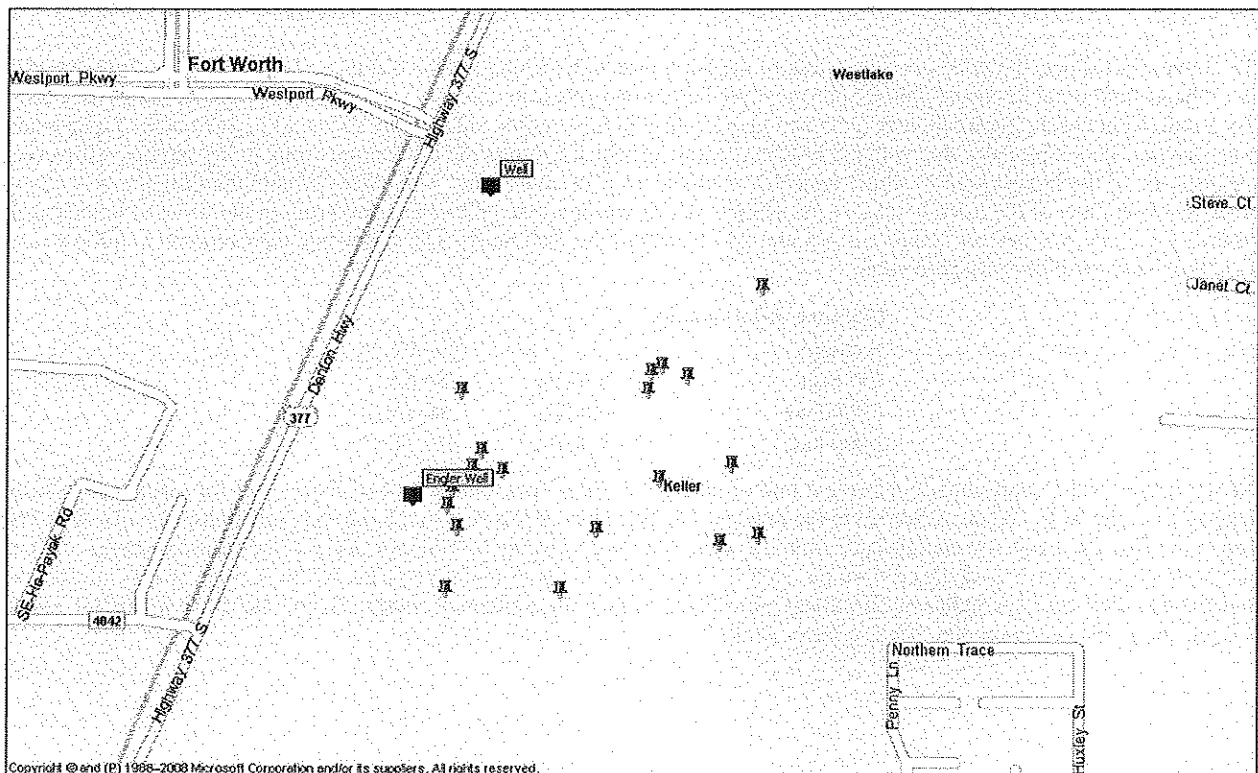


The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *decrease*. The downward trend is fairly strong, possibly due to the fact that the well is also located near the golf course and therefore houses with a view of the golf course exhibit greater values. This is indeed the case for the two closest sales. None of the houses border the well site but it is clearly visible from Fairway Drive. The following chart represents information about the linear trend line observed above.

Distance Relationship		
Average		\$124.49
500 feet	6.28%	\$7.82
1,000 feet	12.56%	\$15.64
2,000 feet	25.12%	\$31.27

The trend line in the chart above indicates a rate of change of \$7.82 per square foot of house size for every 500 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into 6.28% change in value for every 500 feet distance from the well, or a 12.56% change in value at 1,000 feet of distance. In the case of the Country Club Estates subdivision, it appears that the well site has no influence on the sale prices in the sample.

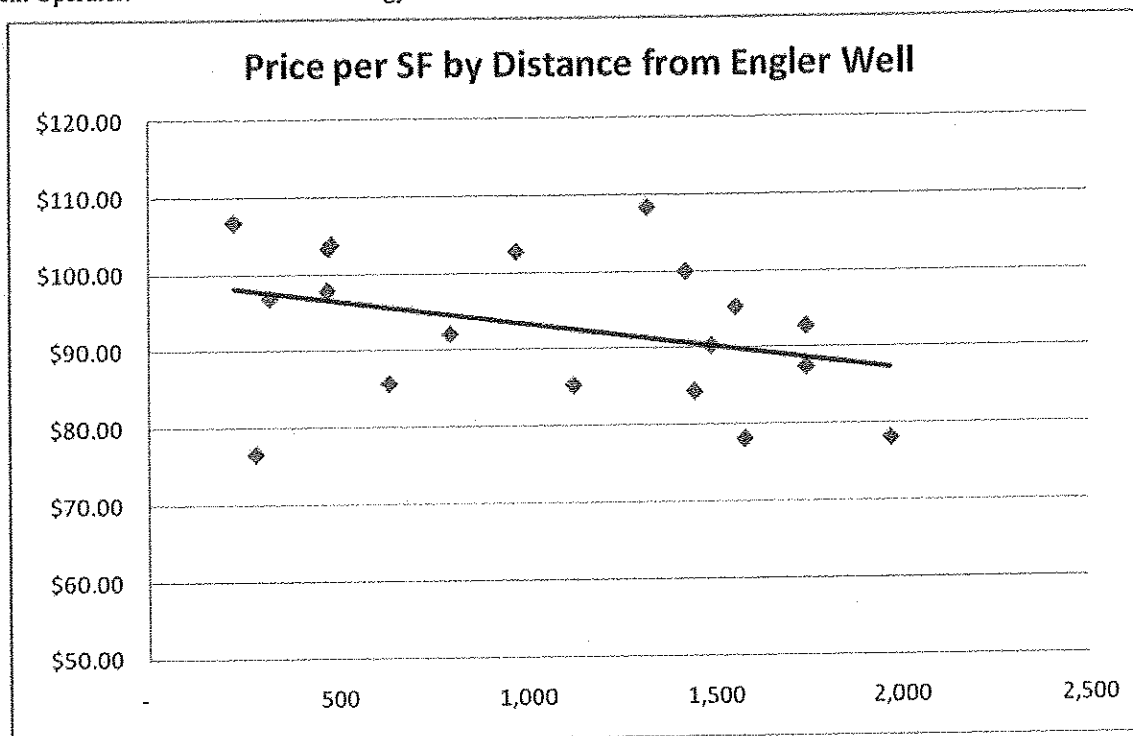
ENGLER WELL SITE (MARSHALL RIDGE)



Engler Well Site and Marshall Ridge Sales, Denton, Texas



Location Description: East of US 377, North of Ridge Point Dr., Keller, Texas  
 Latitude and Longitude: 32.965328,-97.246318  
 Visible Facilities: Three natural gas wells, three storage tanks  
 Drill Commencement Date: 4/16/2006  
 Current Operator: XTO Energy Inc.



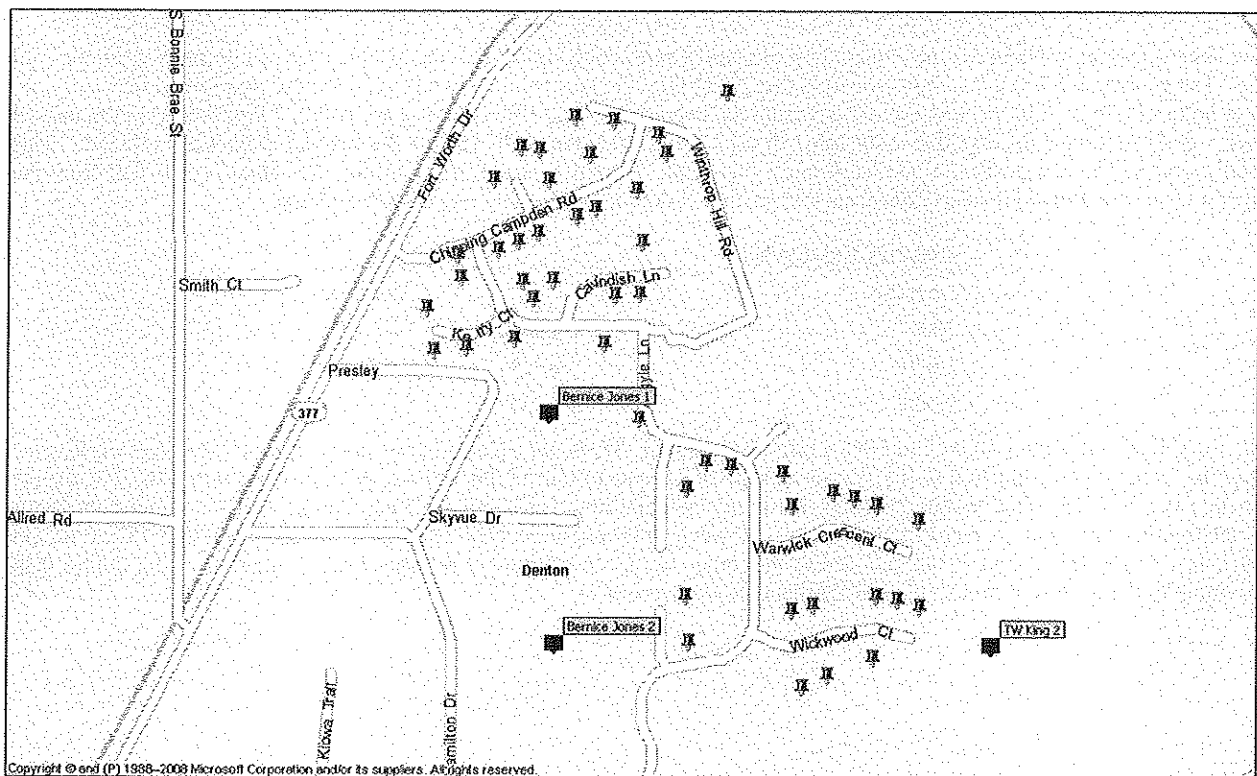
The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *decrease*. This subdivision began construction in 2009 and home values in this sample range from \$220,000 to \$470,000. Two homes in the sample share a property line with the Engler site, one of which exhibits the lowest unit value in the sample. However, it is also one of the largest homes, which typically results in a lower unit value. The homes around the drill site also sit on larger lots than most of the interior sales in the sample, which will increase unit values and prop up the value of homes near the drill site. The two nearest homes are 225 and 280 feet from the well head. The following chart represents information about the linear trend line observed above.

**Distance Relationship**

Average		\$92.97
100 Feet	0.662%	\$0.62
1,000 Feet	6.620%	\$6.16
2,000 Feet	13.241%	\$12.31

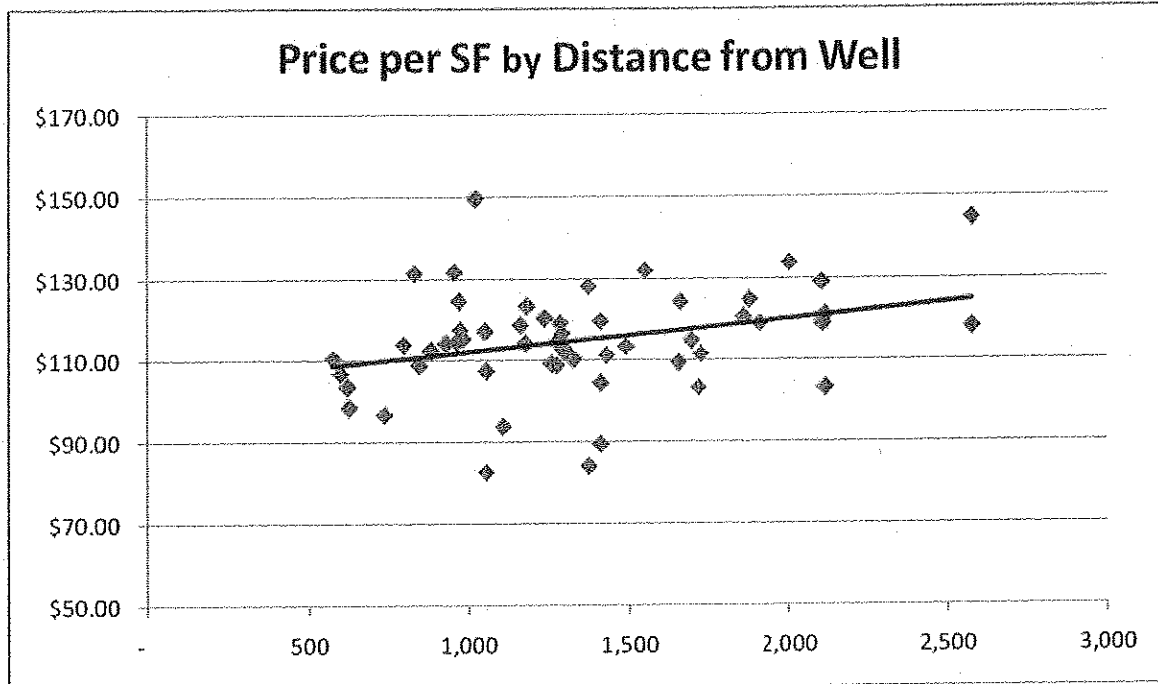
The trend line in the chart above indicates a rate of change of  $-\$0.62$  per square foot of house size for every 100 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into  $-\$0.62\%$  change in value for every 100 feet distance from the well, or a  $-\$6.16$  change in value for every 1,000 feet of distance. Given that the trend is negative as distance from the well increases and that substantial variance for the sample size is introduced immediately, this data set indicates the affect of well proximity on residential values is not the most important value determinant in this neighborhood, if it is a factor at all.

THE HILLS OF ARGYLE SITES



*B Jones and TW King Well Sites and The Hills of Argyle Sales, Argyle, Texas*

Location Description: East of US 377, North of Brush Creek Rd., Argyle, Texas  
 Latitude and Longitude: B. Jones 1 - 33.154311,-97.159267, B. Jones 2 - 33.149926,-97.159098  
 Visible Facilities: Three natural gas wells, three storage tanks  
 Drill Commencement Date: 4/21/2004, 9/15/2006  
 Latitude and Longitude: TW King - 33.149888,-97.14908  
 Visible Facilities: Natural Gas Well, lift station, two storage tanks, separators, unidentified structure  
 Current Operator: Dark Horse Operating Co., LLC & Adkins, R.L. Corp.



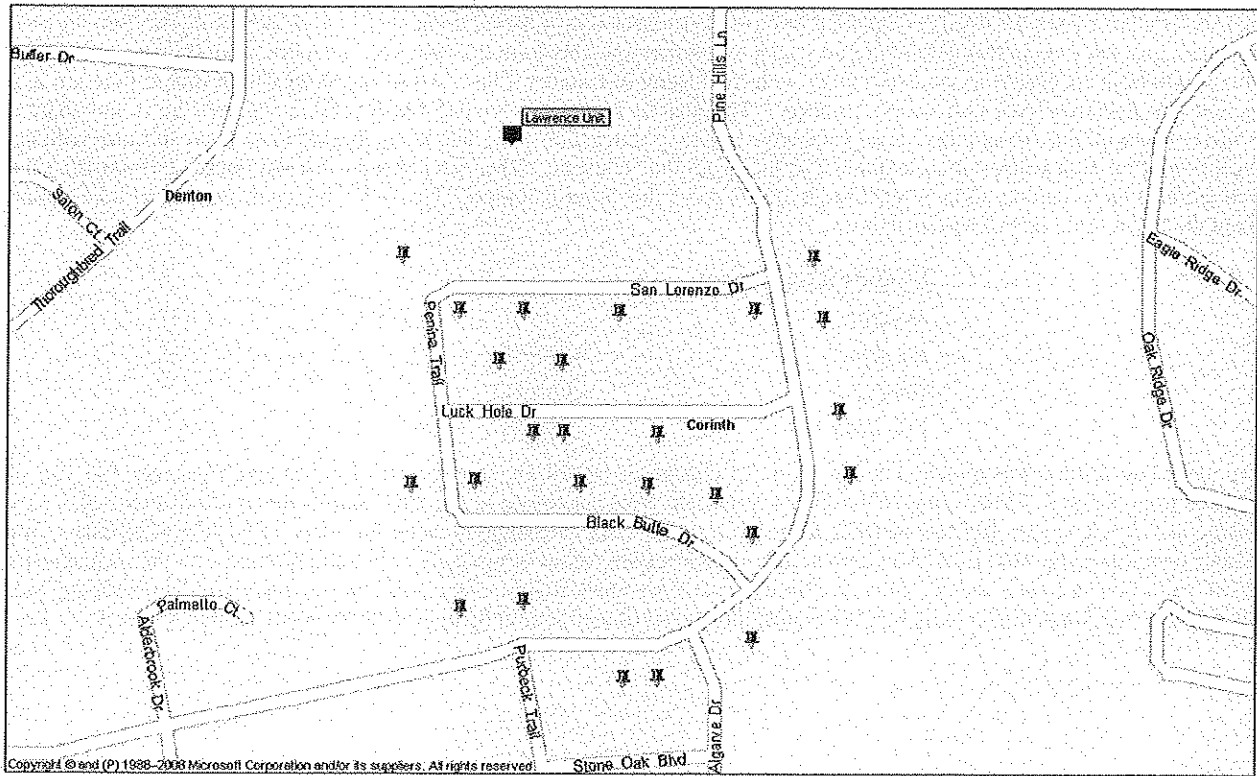
The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *increase*. Four homes in the sample are around 600 feet from the nearest well and fifteen homes are within 1,000 feet from the nearest well. It is important to note that only sales that occurred after the drill date of the nearest well were utilized. This subdivision indicates a positive trend as distance increases. Variance in the data appears after about 1,000 feet from the nearest well. The following chart represents information about the linear trend line observed above.

**Distance Relationship**

Average		\$114.99
500'	-3.46%	(\$3.98)
1,000'	-6.91%	(\$7.95)
2,000'	-13.83%	(\$15.90)

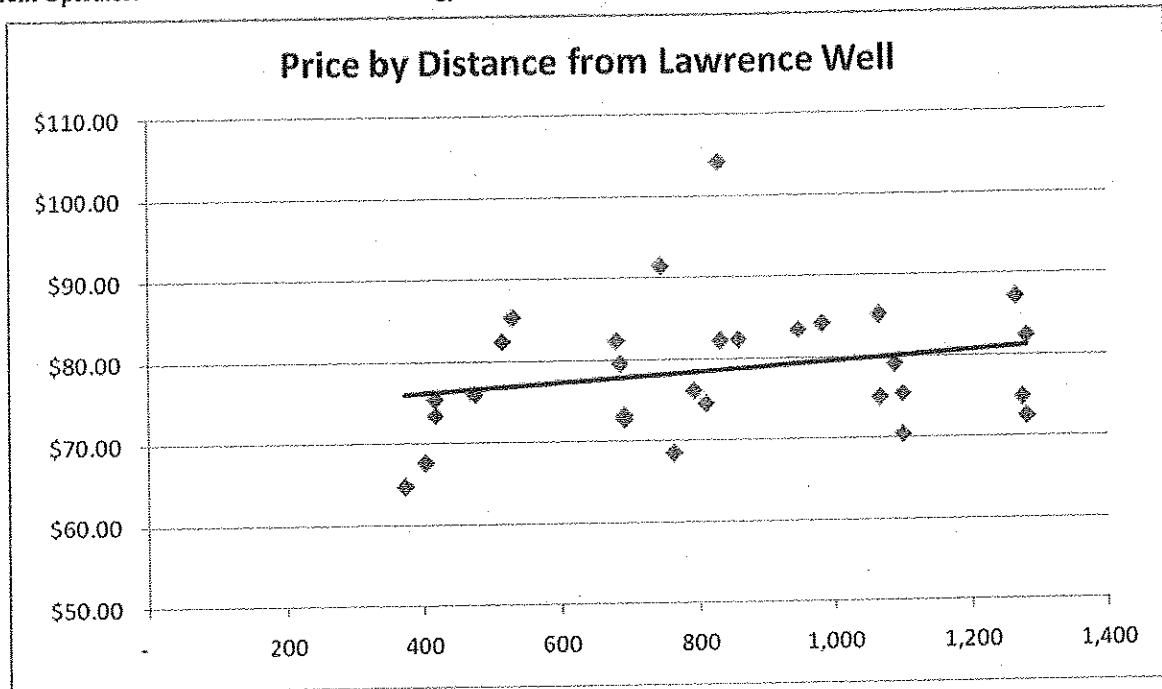
The trend line in the chart above indicates a rate of change of -\$7.95 per square foot of house size at 1,000 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into a -6.91% change in value at 1,000 feet. This sample indicates that in this neighborhood, proximity to a natural gas well is an important factor in determining the value of residential property. However, the measured value change is limited to around 7% at around 1,000 feet. After this distance, the data shows that other factors become more relevant to the valuation of the homes than proximity to the well, so as to be either insignificant or immeasurable.

LAWRENCE WELL SITE (BRAEWOOD AT OAKMONT)



Lawrence Well Site and Braewood at Oakmont Sales, Denton, Texas

Location Description: North of San Lorenzo Dr., West of Pine Hills Ln., Denton, Texas  
 Latitude and Longitude: 33.154665,-97.093103  
 Visible Facilities: One natural gas well, three storage tanks  
 Drill Commencement Date: 3/16/2005  
 Current Operator: Endeavor Energy Resources, L.P.



The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *increase*. This subdivision is located in the community with the Oakmont Country Club. All of the sales within this sample are in a section that does not have golf course frontage. The nearest homes are around 400 feet from the well head and share a property line with the site and there is no vegetative buffer to conceal the site. The trend appears to be fairly uniform with the exception of one high-value outlier at about 830 feet from the wellhead. When we consider that the houses farthest from the well are also those tending to be closest to the golf course, this trend is logical. The following chart represents information about the linear trend line observed above.

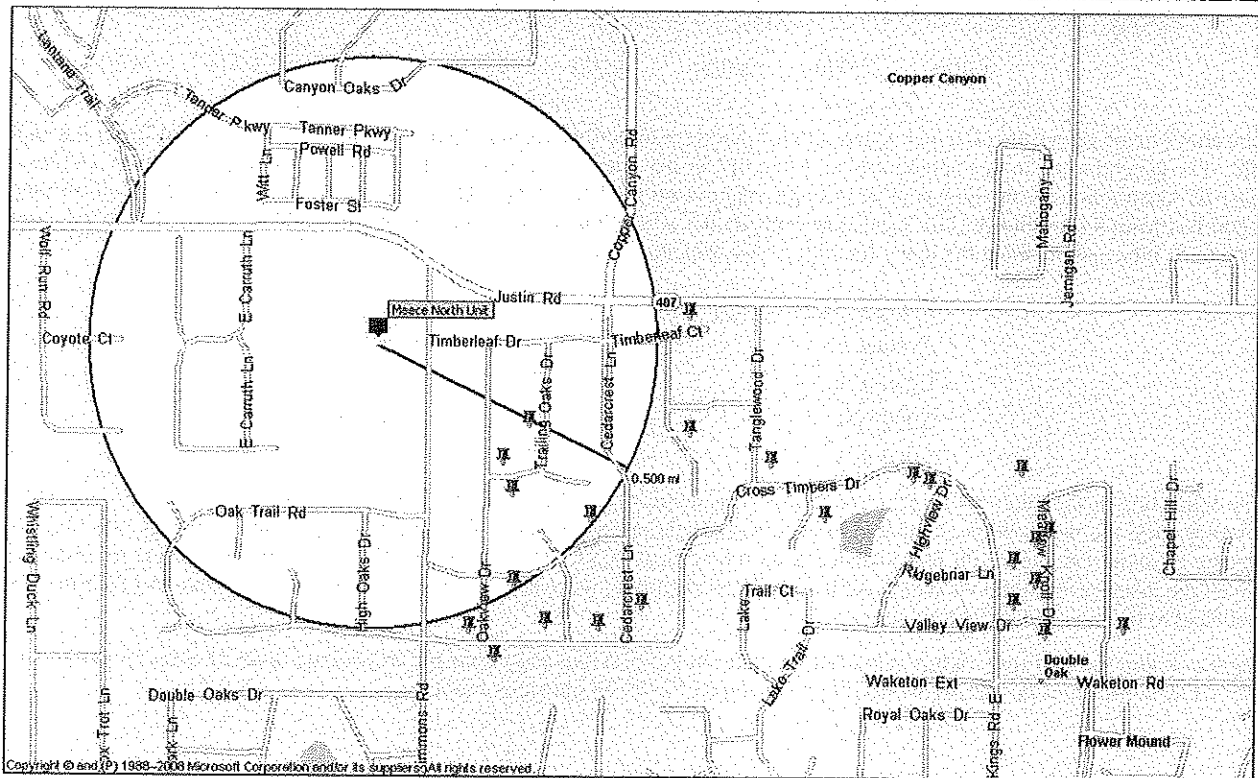
#### Distance Relationship

Average		\$78.65
100 feet	-0.735%	(\$0.58)
500 feet	-3.676%	(\$2.89)
1,000 feet	-7.353%	(\$5.78)

The trend line in the chart above indicates a rate of change of -\$0.58 per square foot of house size for every 100 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into -0.735% change in value for every 100 feet distance from the well, or a -\$5.78 change in value for every 1,000 feet of distance. We believe two important proximity factors are in play that influence values in this case. First, the proximity to the well appears to pull values down near it and secondly, proximity, or at least a partial view of the golf course typically pulls values upward. Given these two competing geographical elements, the impact of well proximity appears to dissipate around 800 feet.

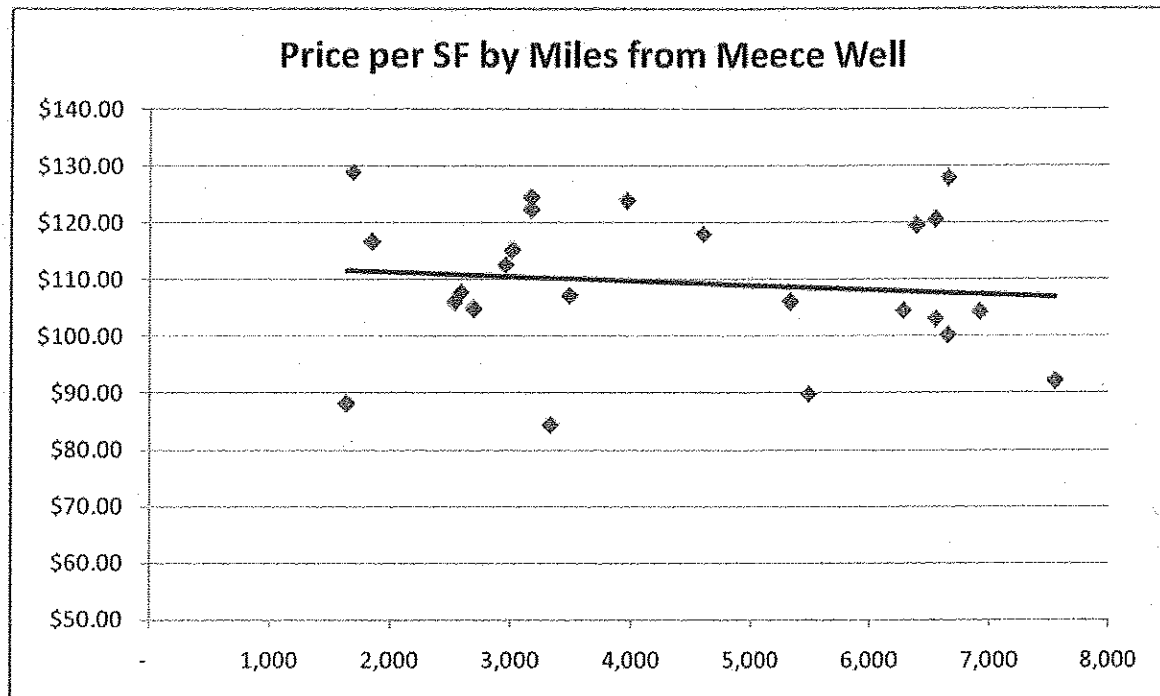


MEECE WELL SITE (CROSS TIMBERS)



Meece Well Site and Cross Timbers Sales, Double Oak, Texas

Location Description: West of Simmons Rd., South of FM 407, Double Oak, Texas  
 Latitude and Longitude: 33.071249,-97.115907  
 Visible Facilities: Natural gas wellhead, unidentified structure  
 Drill Commencement Date: 3/24/2008  
 Current Operator: Red Oak Gas Operating Company, L.P.



The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *decrease*. Year of construction for the homes in this sample range from the late 70's to 2001. No houses in this sample are closer than 1,600 feet from the wellhead. This particular well site has a wooden privacy fence around its perimeter. The following chart represents information about the linear trend line observed above.

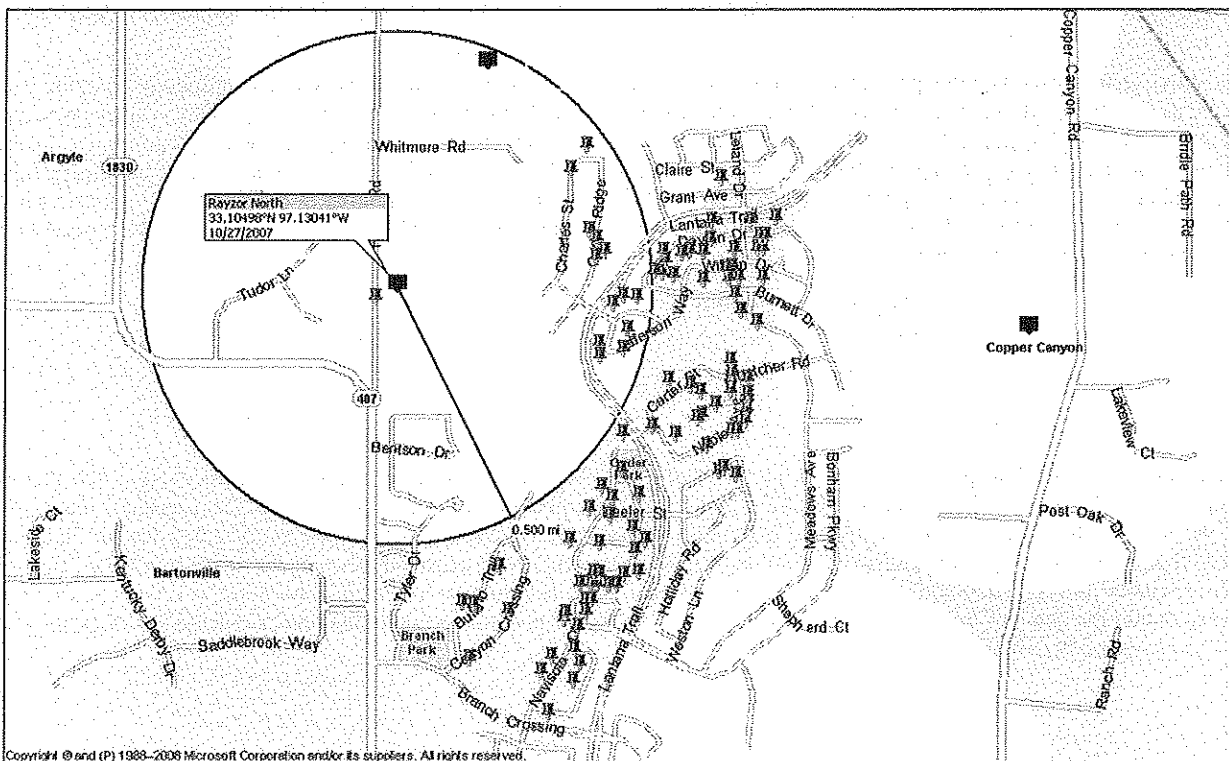
**Distance Relationship**

Average		\$109.58
1,000 feet	0.723%	\$0.79
2,000 feet	1.447%	\$1.59
5,000 feet	3.616%	\$3.96

The trend line in the chart above indicates a rate of change of \$0.79 per square foot of house size for every 1,000 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into 0.723% change in value for every 100 feet distance from the well, or a 1.447% change in value for every 2,000 feet of distance. Given the distance from the wellhead and the negative trend line, it appears that the sales in this sample are too far from the wellhead to be impacted by its proximity.

Houses within the half-mile radius shown in the map on the previous page sold for an average price of \$109.59 per square foot while houses outside this radius sold for an average of \$109.58 per square foot.

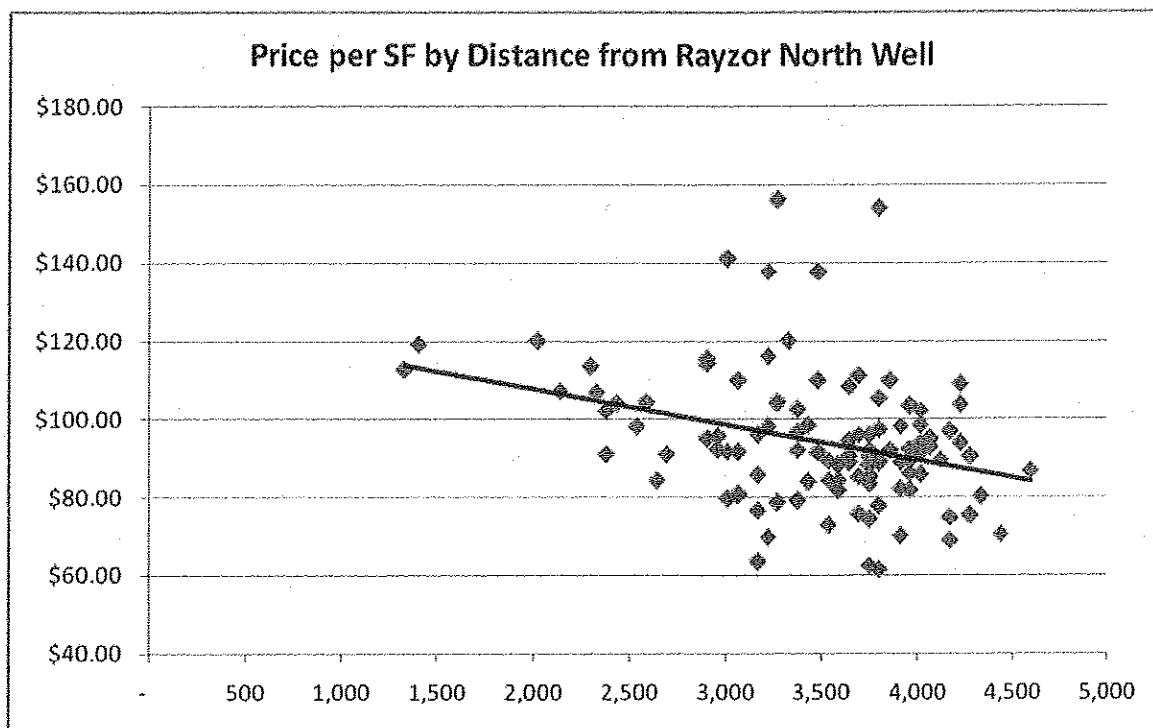
## RAYZOR NORTH WELL SITE (LANTANA)



Rayzor Well Site and Lantana Sales, Argyle, Texas  
Yellow rings indicate half-mile radii from surrounding wells



Location Description: West of Hilltop Rd., North of FM 407, Argyle, Texas  
 Latitude and Longitude: 33.105101,-97.13023  
 Visible Facilities: Three natural gas wells, storage and metering facilities  
 Drill Commencement Date: 10/27/2007  
 Current Operator: Red Oak Gas Operating Company, L.P.



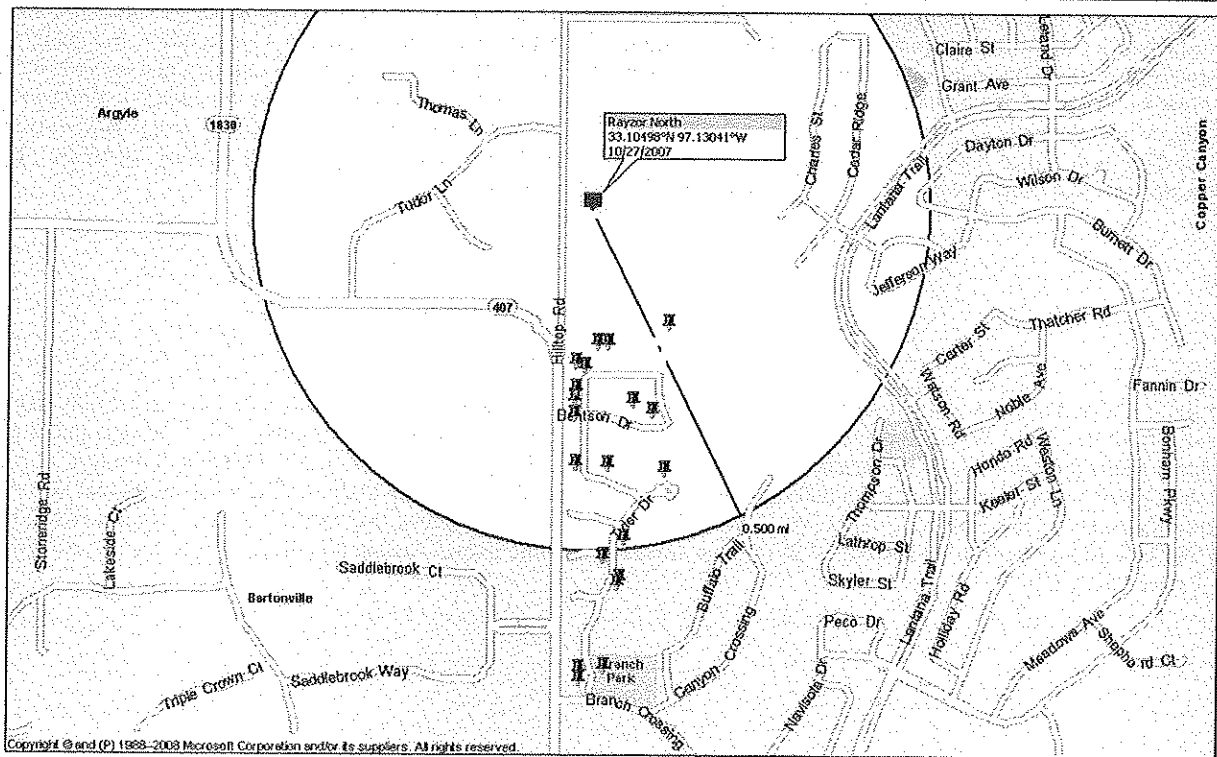
The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *decrease*. All sales are located in the Lantana Master-Planned Community. There are multiple wells in close proximity to the development and all sales within one-half mile of other wells have been excluded from this sample. The sale nearest the wellhead is 1,330 feet away. There is a vegetative buffer between the site and the houses in the sample. It appears some other geographic element influences value much more than proximity to the wellhead. The following chart represents information about the linear trend line observed above.

**Distance Relationship**

Average		\$94.18
1,000 feet	9.6%	\$9.06
2,000 feet	19.2%	\$18.12
5,00 feet	48.1%	\$45.30

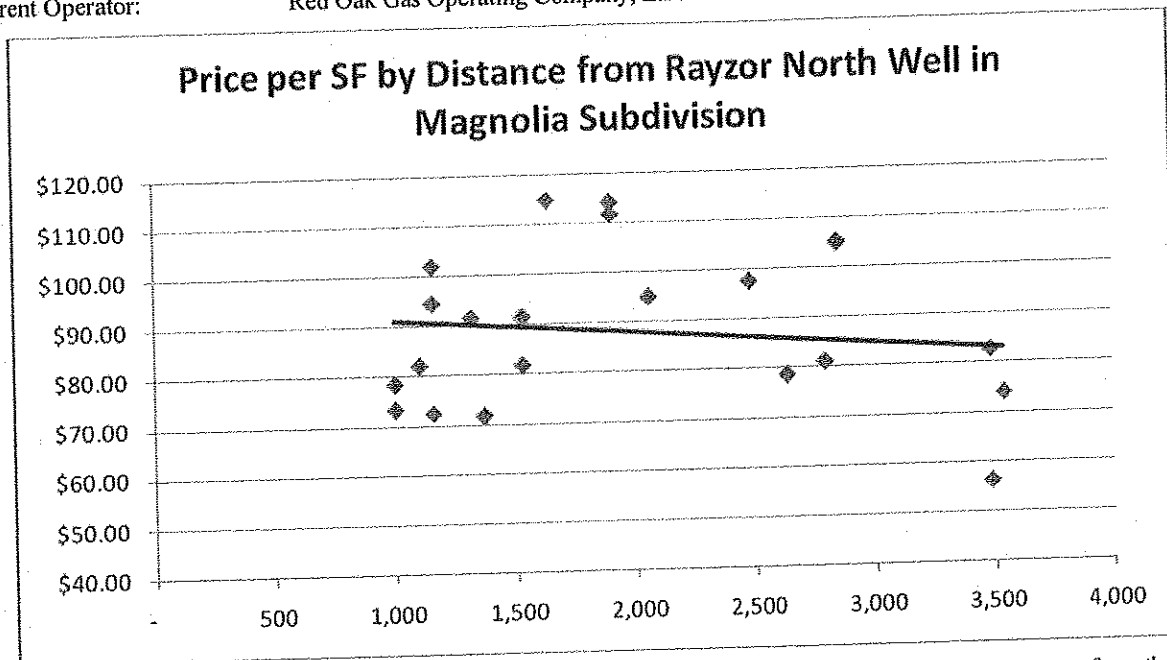
The trend line in the chart above indicates a rate of change of \$9.06 per square foot of house size for every 1,000 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into 9.6% change in value for every 1,000 feet distance from the well, or a 19.2% change in value for every 2,000 feet of distance. Given that the trend is negative as distance from the well increases and the counter intuitive nature of the trend, the affect of well proximity on residential values is not the most important value determinant in this neighborhood, if it is a factor at all. Homes within the one-half mile radius sold for an average of \$107.20 per square foot while homes outside this distance sold for an average of \$92.76 per square foot.

## RAYZOR NORTH WELL SITE (LANTANA, MAGNOLIA ADDITION)



Rayzor Well Site and Magnolia Sales, Argyle, Texas  
Yellow rings indicate half-mile radii from surrounding wells

Location Description: West of Hilltop Rd., North of FM 407, Argyle, Texas  
 Latitude and Longitude: 33.105101,-97.13023  
 Visible Facilities: Three natural gas wells, storage and metering facilities  
 Drill Commencement Date: 10/27/2007  
 Current Operator: Red Oak Gas Operating Company, L.P.

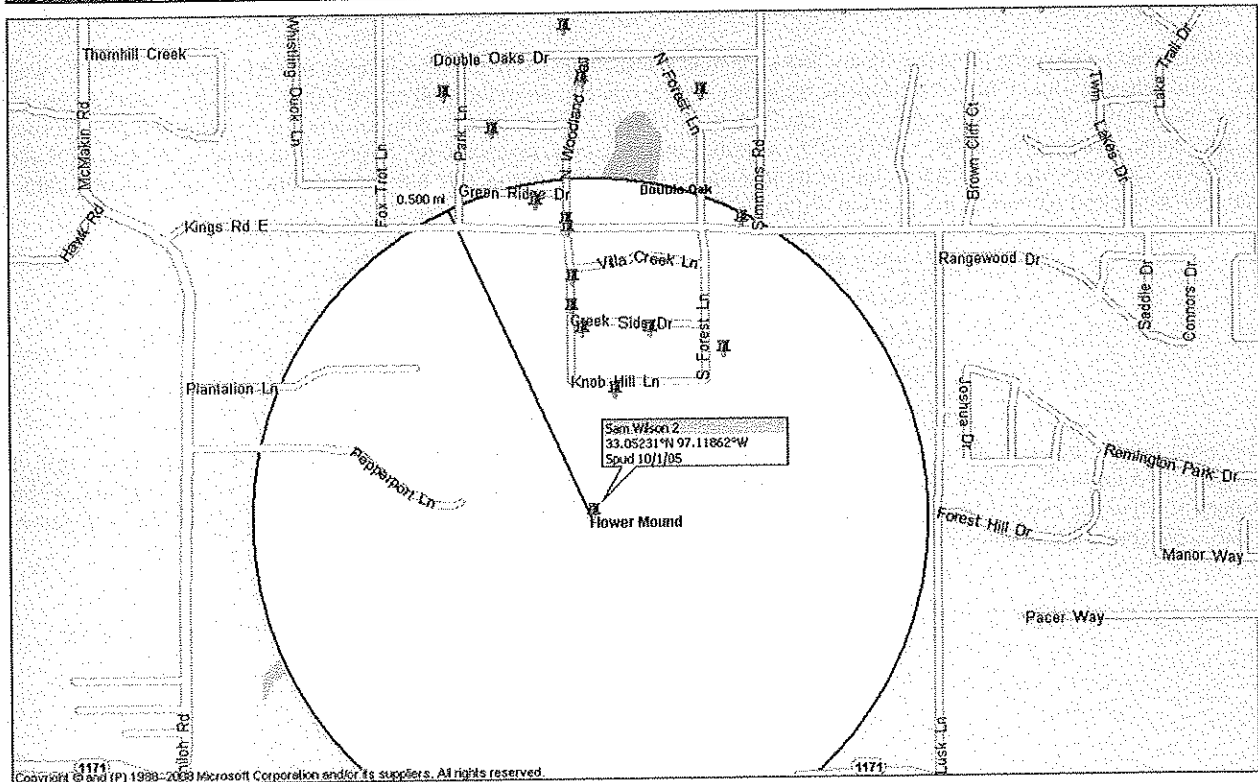


The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *decrease*. All sales are located in the Lantana Master-Planned Community in the Magnolia Addition. This addition was analyzed separately from the other sales in the community because they are much different with regard to building and lot size, being more garden or patio style homes. Additionally, the well site is visible from the nearest homes in the addition, although its view is mostly obstructed. Three of the homes are about 1,000 feet from the wellhead. The two in closest proximity lie toward the lower end of the range of values, yet the sample indicates a negative trend overall as distance increases. The following chart represents information about the linear trend line observed above.

Distance Relationship		
Average		\$88.09
1,000 feet	3.6%	\$3.20
2,000 feet	7.3%	\$6.39
3,000 feet	10.9%	\$9.59

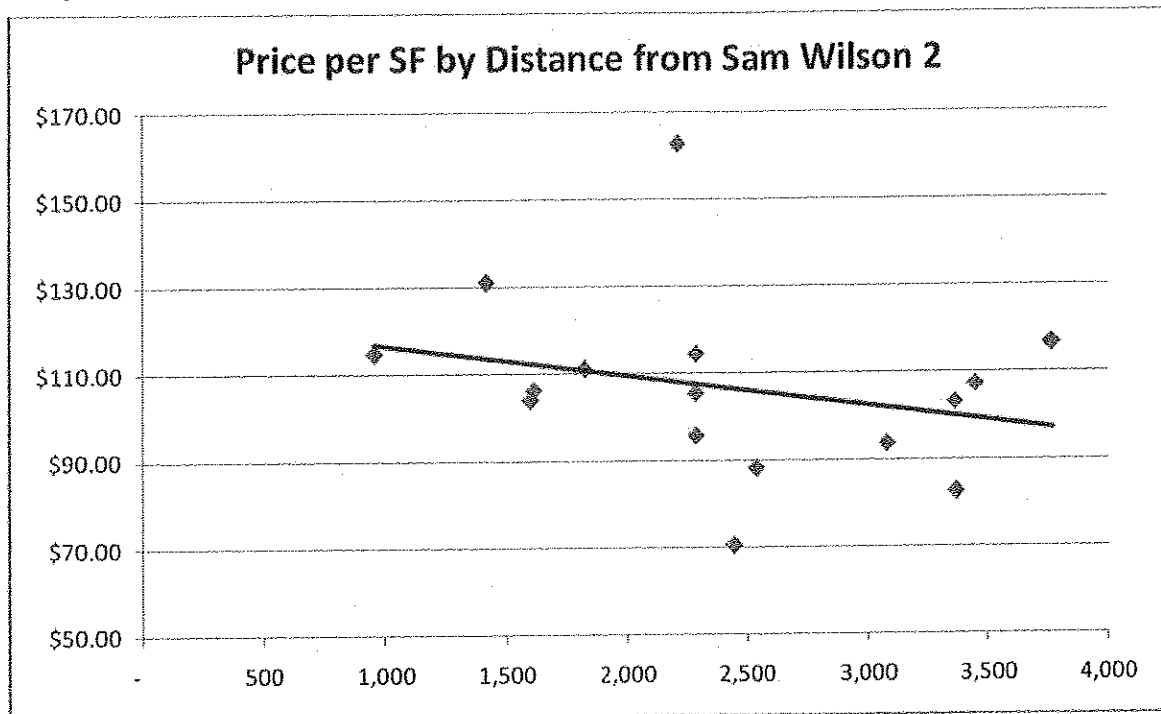
The trend line in the chart above indicates a rate of change of \$3.2 per square foot of house size for every 1,000 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into 3.6% change in value for every 1,000 feet distance from the well, or a 7.3% change in value for every 2,000 feet of distance. Given that the trend is negative as distance from the well increases, it appears that proximity to the well is not a substantial factor in determining sales price. However, the homes at the 1,000 foot range exhibit below average unit values. Homes within the one-half mile radius sold for an average of \$91.47 per square foot while homes outside this distance sold for an average of \$71.64 per square foot.

SAM WILSON PAD 2 WELL SITE



Sam Wilson Pad 2 Site and Neighborhood Sales, Denton, Texas

Location Description: North of FM 1171, East of Pepperport Ln., Flower Mound, Texas  
 Latitude and Longitude: 33.052314,-97.118626  
 Visible Facilities: One natural gas wellhead, four storage tanks  
 Spud Date: 10/1/2005  
 Current Operator: Williams Prod. Gulf Coast, L.P.



The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *decrease*. The house nearest the well site is about 950 feet from the wellhead. It sold for about the average price of the sample. Houses in the sample sold from \$230,000 to \$450,000. Variance in the sample appears to be introduced at about 2,250 feet from the wellhead. However, the downward sloping trend would indicate that distance is not a determining factor for home value. The following chart represents information about the linear trend line observed above.

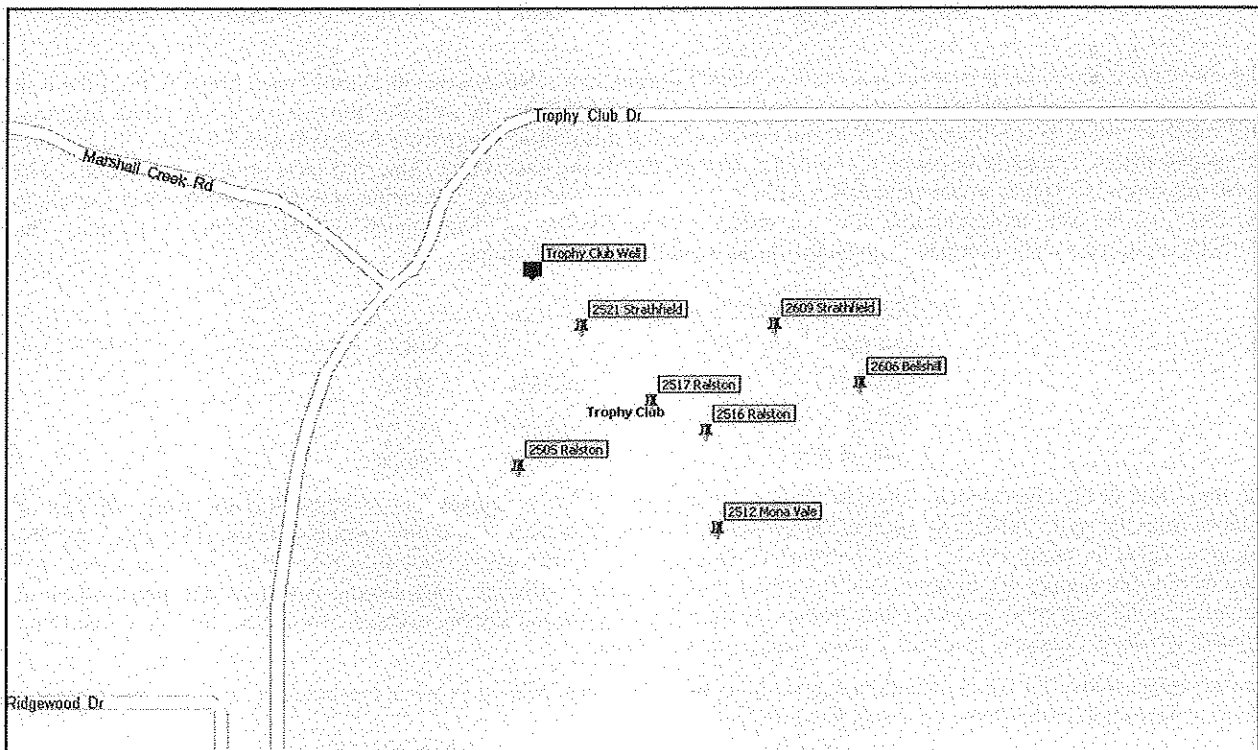
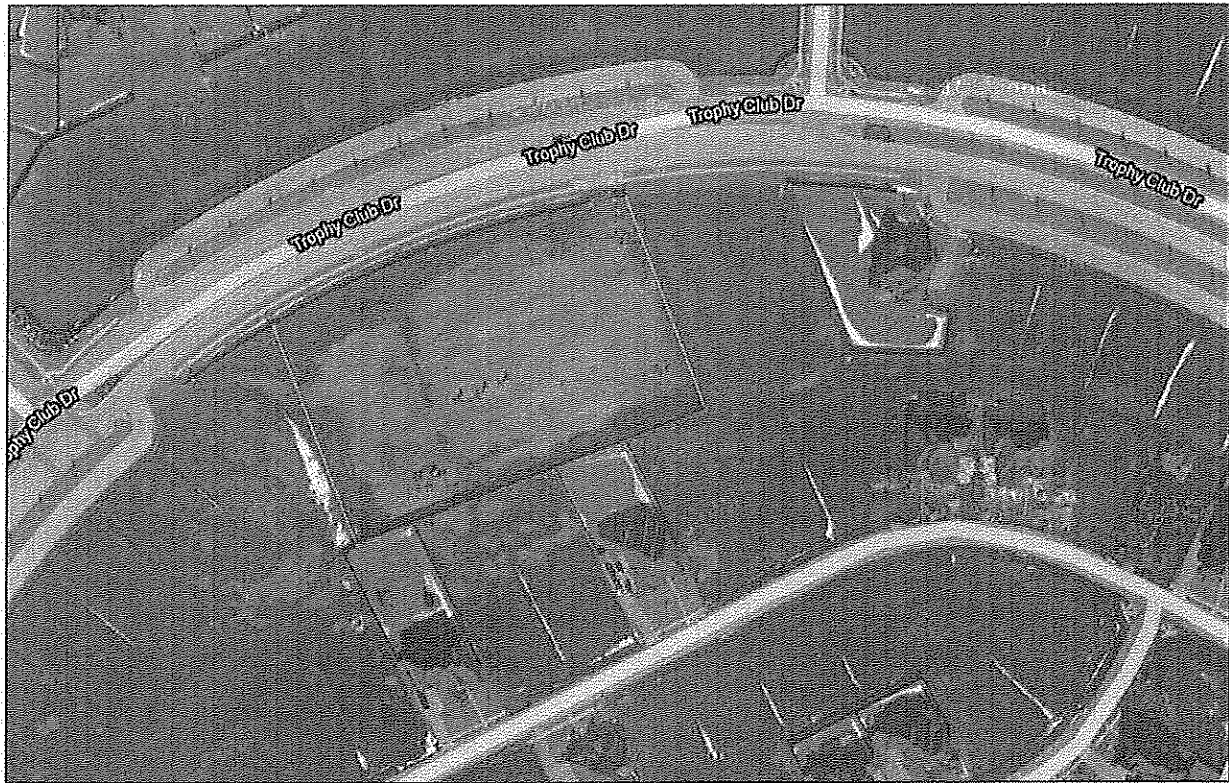
**Distance Relationship**

Average		\$106.85
1,000 feet	6.6%	\$7.06
2,000 feet	13.2%	\$14.12
3,000 feet	19.8%	\$21.18

The trend line in the chart above indicates a rate of change of 6.6% per square foot of house size for every 1,000 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into \$7.06 change in value for every 1,000 feet distance from the well, or a \$21.18 change in value for every 3,000 feet of distance. Clearly, proximity to the Sam Wilson well does not have a measureable impact on property value in this sample.

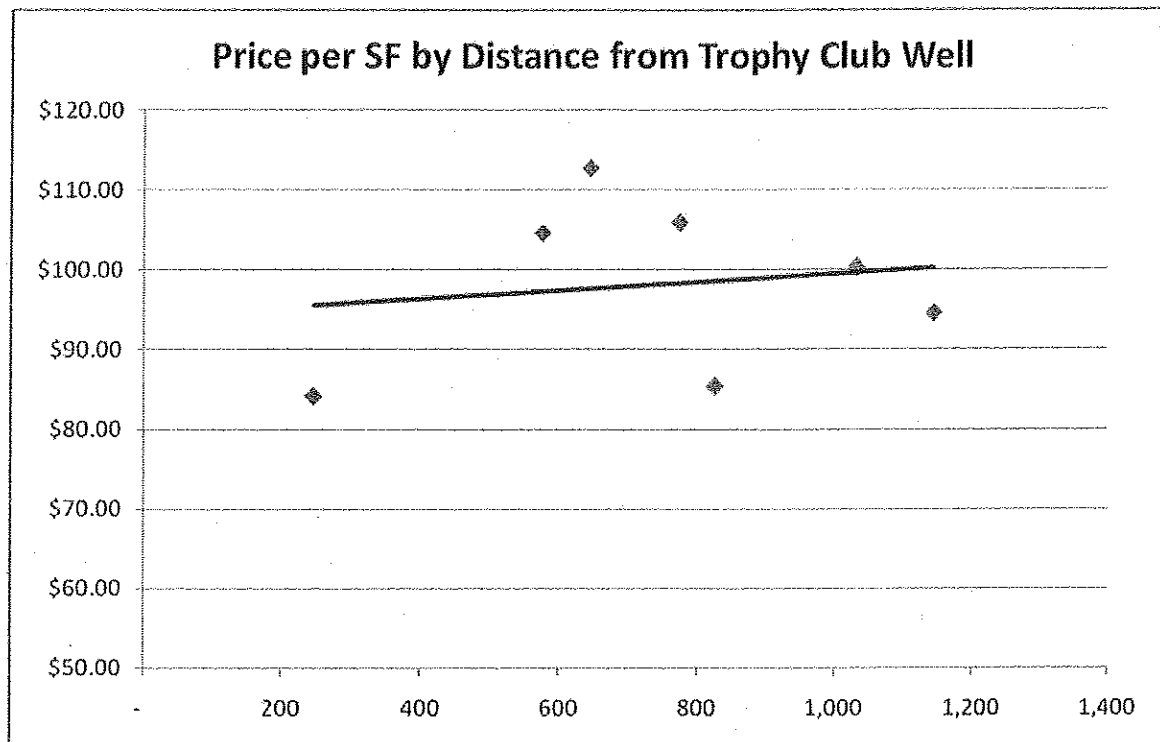


## TROPHY CLUB WELL SITE



*Trophy Club Well Site and Neighborhood Sales, Trophy Club, Texas*

Location Description: East of intersection of Trophy Club Dr. and Bobcat Blvd., Trophy Club, Texas  
 Latitude and Longitude: 33.013708,-97.199077  
 Visible Facilities: Three natural gas wellheads, metering station  
 Drill Commencement Date: 10/22/2005  
 Current Operator: Encana Oil and Gas (USA), Inc.



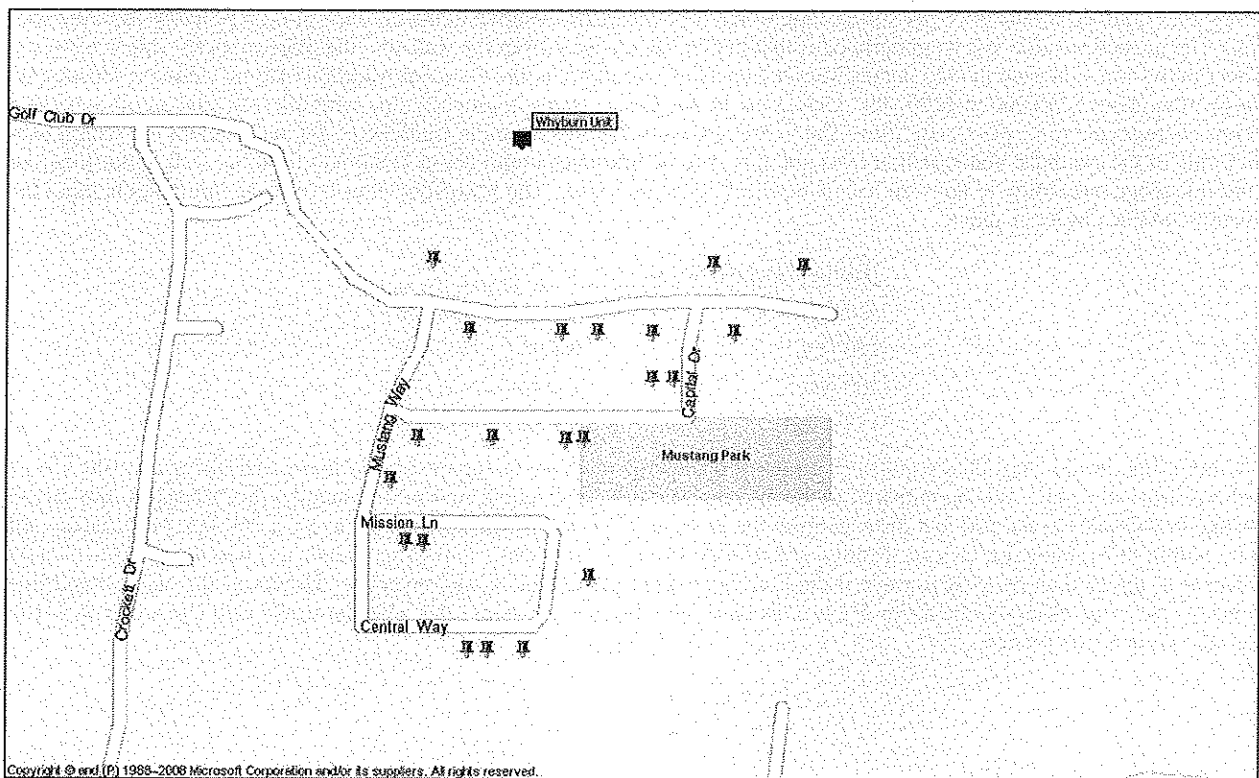
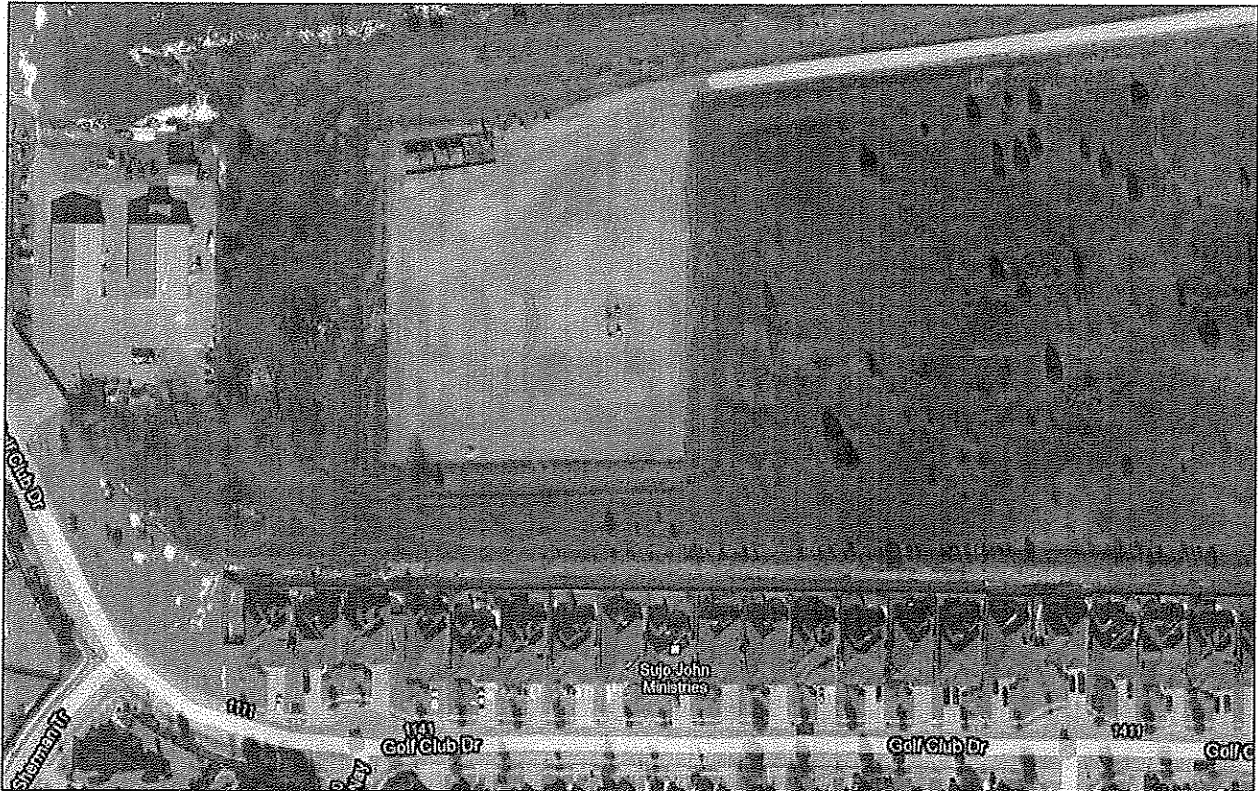
The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *increase*. This subdivision began construction in 2009 and home values in this sample range from \$340,000 to \$430,000. One home in the sample shares a property line with the well site, and it exhibits the lowest unit value and sales price in the sample. The house measures 246 feet from the wellheads. Although the sample size is small, variation appears to be introduced at about 800 feet from the well, indicating that after this range, proximity to the well has a much reduced influence on value. The following chart represents information about the linear trend line observed above.

Distance Relationship		
Average		\$98.21
100 feet	-0.54%	-\$0.53
500 feet	-2.68%	-\$2.63
1,000 feet	-5.36%	-\$5.26

The trend line in the chart above indicates a rate of change of -\$0.53 per square foot of house size for every 100 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into -0.54% change in value for every 100 feet distance from the well, or a -\$5.26 change in value for every 1,000 feet of distance. All sales within this sample are located within one-half mile from the wellhead. This sample indicates that homes in close proximity to the well show a measurable decline in value from the overall sample average. However, the above trend line indicates the value change to be about 5% at a distance of 1,000 feet.

A sales representative for the homebuilder stated that homes adjacent to well sites are not discounted. It is possible that this sale is an aberration or that some unknown factor influenced sale price.

WHYBURN WELL SITE (LANTANA, CRESCENT ADDITION)

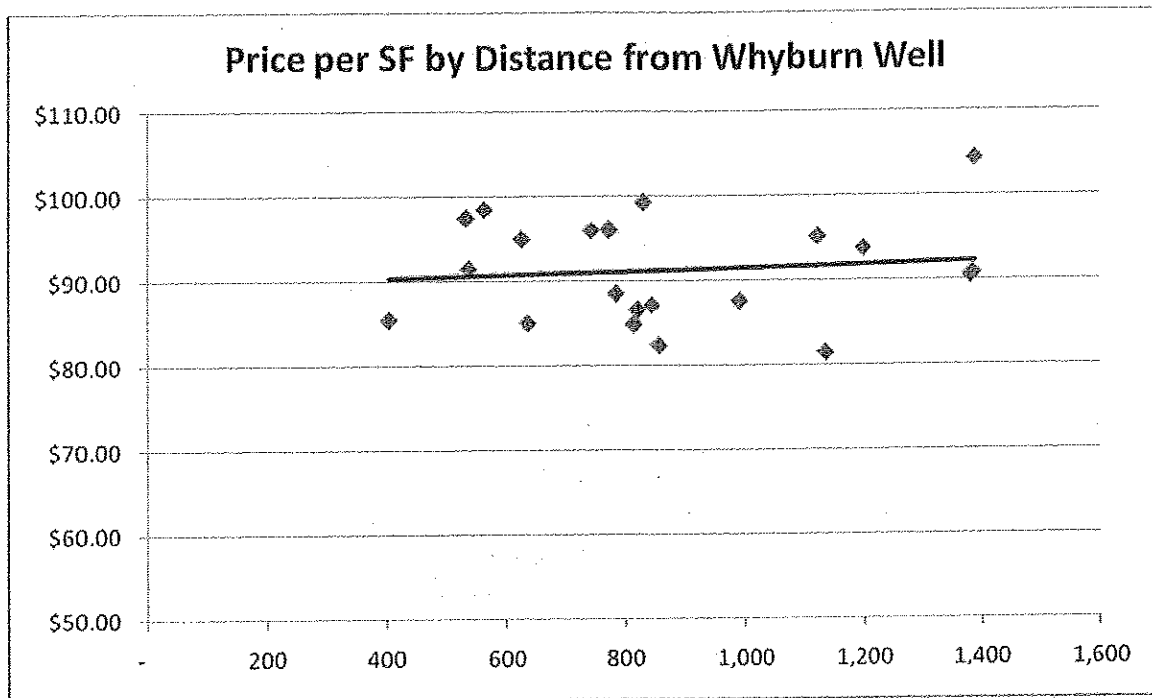


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Whyburn Well Site and Crescent Addition Sales, Lantana, Texas



Location Description: West of Copper Canyon Rd., North of Golf Club Dr., Lantana, Texas  
 Latitude and Longitude: 33.089792,-97.116687  
 Visible Facilities: Two natural gas wellheads, metering station  
 Drill Commencement Date: 7/7/2007  
 Current Operator: Red Oak Gas Operating Company, L.P.



The above chart shows the price per square foot of market transactions relative to the distance of each property from the well site. The general trend in this neighborhood is that the farther one gets from the well site, the more property values *increase*. This subdivision is located in the Lantana Master-Planned Community in the Crescent Addition. Home values in this sample range from about \$200,000 to \$290,000. One home in the sample shares a property line with the well site, and it exhibits a below average sale price per square foot. The house measures 476 feet from the wellheads. All observations are within one-half mile of the wellhead and variation does not appear to be introduced until about 1,400 feet from the well, indicating that after this range, proximity to the well has reduced influence on value. The following chart represents information about the linear trend line observed above.

Distance Relationship		
Average		\$91.28
100 feet	-0.22%	(\$0.20)
500 feet	-1.09%	(\$0.99)
1,000 feet	-2.17%	(\$1.98)

The trend line in the chart above indicates a rate of change of -0.22% per square foot of house size for every 100 feet of distance from the well. When compared to the average sale price per square foot in this sample, this translates into -\$0.20 change in value for every 100 feet distance from the well, or a -\$1.98 change in value for every 1,000 feet of distance. All sales within this sample are located within one-half mile from the wellhead. This sample indicates that homes immediately adjacent to the well show a measurable decline in value from the overall sample average. However, the above trend line indicates the value change to be about 2% at a distance of 1,000 feet. Several sales adjacent to the well site are analyzed in the sales comparison section.

## SUMMARY OF DISTANCE ARRAYS

*Value Impact Correlated to Proximity to Well*

Site	Location	Rate of Change at 1,000 feet*	Comments
Acme	Denton	-8.89%	Well not visible from subdivision
Lawrence	Denton	-7.35%	Well highly visible from adjacent homes
<i>Hills of Argyle</i>	<i>Argyle</i>	<i>-6.96%</i>	<i>Wells visible from adjacent homes</i>
<i>Trophy Club</i>	<i>Trophy Club</i>	<i>-5.36%</i>	<i>Well immediately adjacent to the first sale</i>
<i>Whyburn</i>	<i>Lantana</i>	<i>-2.17%</i>	<i>Well highly visible from adjacent homes</i>
Alliance-Saratoga	Fort Worth	-0.62%	High degree of variance in sale prices
Crow-Wright	Flower Mound	0.71%	Tree buffer between wells and houses
Meece	Double Oak	0.72%	Nearest sale 1,600 feet from well
Bunn	Flower Mound	1.02%	Well not highly visible
Button	Copper Canyon	1.25%	Well across road from first sale
Aune	Lantana	3.32%	Well not visible from sales in sample
Rayzor (Magnolia)	Lantana	3.60%	Well visible from nearest houses
Connell	Denton	6.23%	Well immediately adjacent to the first sale
Sam Wilson 2	Flower Mound	6.60%	Tree buffer between wells and houses
Engler	Keller	6.62%	Shared property line between site and sales
Rayzor	Lantana	9.60%	Well not visible from houses
DCC	Argyle	12.56%	Well clearly visible from closest street

\* Negative signs indicate that values decrease as proximity to a well site increases. Positive signs indicate that values increase as proximity to a well site increases. Locations with houses immediately adjacent to well sites and that indicate a negative impact are italicized.

The distance of houses from well sites in this study ranges from about 300 feet to 5,000 feet. It appears that somewhere around 1,000 feet from the well site, the affect becomes too diluted to perceive any measureable impact, based on the preponderance of evidence in this study. Differences in value observed from these neighborhoods show variations between 12.56% (positive impact correlated to well proximity) and -8.89% (negative impact correlated to well proximity) for every 1,000 feet of distance from the well site. These variations are easily attributable to the imperfect nature of real estate markets or other unknown causes that were not evident in the data or market participant interviews. By visually inspecting the scatter plots (charts) from each neighborhood, most variance in price is introduced between 1,000 and 1,500 feet from the wellhead.

The following observations were made in this dataset.

1. In 83% of the locations where a negative impact on value was observed the well site was visible from the nearest homes. That is to say, all sites but one could be seen.
2. In the locations where no impact on value was found as a result of proximity to well sites only 45% of the sites were visible.
3. Additionally, of the sites where no impact was measured only 18% were immediately adjacent to the well site and none of these locations were found to be in the Flower Mound/Argyle area.

We can draw the conclusion from this data that in the Flower Mound area, when houses are immediately adjacent to well sites there is a measurable impact on value. As distance from the well site increases, this affect quickly diminishes.

Site	Location	Rate of Change at 1,000 feet	Comments
Hills of Argyle	Argyle	6.96%	Wells visible from adjacent homes
Trophy Club	Trophy Club	5.36%	Well immediately adjacent to the first sale
Whyburn	Lantana	2.17%	Well highly visible from adjacent homes
Average		4.83%	

On a straight-line basis, this impact was measured to be between 2% and 7%, with an average of 4.83% at 1,000 feet for the samples taken for Flower Mound-comparable sites in close proximity, with well visibility.

## COMPARABLE SALES ANALYSIS

Within our distance array research for Flower Mound neighborhoods with sufficient transactions to study the impact of well sites on property values, sites that immediately abutted residential neighborhoods were shown to impact property values in most cases. However, this methodology measures general trends and not specific transactions. Therefore, more in depth consideration of home sales adjacent to well sites is necessary. Yet, the lack of market transactions near completed wells has forced consideration of more established neighborhoods and sites outside Flower Mound. As a result, we searched for well sites near urban areas in other areas of Denton and Tarrant Counties.

We were able to locate several neighborhoods with similar characteristics to those found in Flower Mound. Most drilled well sites in Flower Mound are in areas where agricultural land is available for drilling. These locations are generally in areas that have not yet achieved maximum residential density. Several well sites in other areas of Southern Denton County and Northern Tarrant County exhibit very similar characteristics to these sites. Due to their earlier well dates, the volume of sales data from surrounding neighborhoods increases the odds of finding market transactions adjacent to the well sites and sufficient transactions in the same neighborhood that are farther from the well site for comparison.

For the following analyses, we located well sites near existing residential subdivisions in urban and suburban settings. We located sales of houses on the perimeter of the subdivision nearest the well site. We then located four other sales within the subdivision believed to be sufficiently removed from the well site so as to have little or no impact on value. We looked for subdivisions with relatively homogeneous properties in order to eliminate as many differences between houses as possible. After moderate adjustments were made to these sales, such as for square footage and date of sale, their indicated value was compared to the house near the well site and the difference recorded. Not all sites analyzed in the price-distance section yielded suitable data for this approach.

Due to the nature of the sales comparison valuation process and because of the imperfection of real estate markets, variations in value of less than +/-5% are considered to be normal fluctuations. These fluctuations are best explained by specifics of the negotiation processes, subjectivity in adjustments, and elements of comparison that may not be evident in the data.

**ALLIANCE-SARATOGA**

The Saratoga subdivision is located in north Fort Worth south of SH 170, about 2 miles from the Denton County line, in a rapidly growing residential area. Four sales with views of the well site were found through our data sources. They range from 711 to 946 feet from the well heads. The Alliance-Saratoga site also appears to contain a gas lift and support facilities and has been recently active. The houses included in this sampling are in the \$210,000 to \$280,00 price range.

**Set 1**

	12764 Connemara	3549 Pedigree	12737 Welsh Walk	12736 Homestretch	12812 Travers
Distance in Feet	711	2,519	2,162	2,767	1,327
Sale Date	6/12/08	11/11/08	11/30/07	12/3/08	9/25/08
Gross Living Area	2,443	2,345	2,397	2,424	2,460
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$246,828	\$247,720	\$204,768	\$229,685	\$211,000
Sale Price/SF	\$101.03	\$105.64	\$85.43	\$94.75	\$85.77
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	100	\$0.00	\$0.00	\$0.00	\$0.00
<b>Adjusted Sale Price</b>	<b>\$101.03</b>	<b>\$105.64</b>	<b>\$85.43</b>	<b>\$94.75</b>	<b>\$85.77</b>
<b>Sale Price Comparison:</b>					
House Near Well					\$101.03
Houses off Well (Average)					\$92.90
Difference					\$8.14
% Difference					8.76%

**Set 2**

	12913 Royal Ascott	3533 Caspian	12620 Travers	12944 Royal Ascot	12704 Homestretch
Distance in Feet	946	2,805	2,346	1,341	2,846
Sale Date	11/10/09	5/29/09	3/1/10	5/6/10	6/23/09
Gross Living Area	2,845	2,836	2,840	2,845	2,900
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$241,219	\$241,200	\$217,500	\$233,618	\$253,000
Sale Price/SF	\$84.79	\$85.05	\$76.58	\$82.12	\$87.24
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	100	\$0.00	\$0.00	\$0.00	\$0.00
<b>Adjusted Sale Price</b>	<b>\$84.79</b>	<b>\$85.05</b>	<b>\$76.58</b>	<b>\$82.12</b>	<b>\$87.24</b>
<b>Sale Price Comparison:</b>					
House Near Well					\$84.79
Houses off Well (Average)					\$82.75
Difference					\$2.04
% Difference					2.46%

## Set 3

	12848 Lizzie Pl	12632 Saratoga	12505 Lizzie Pl	12809 Saratoga	12824 Travers
Distance in Feet	830	1,787	2,658	1,907	1,219
Sale Date	5/13/09	4/30/09	9/2/09	12/5/08	5/22/09
Gross Living Area	3,033	2,986	3,022	3,057	3,061
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$227,500	\$265,000	\$270,000	\$249,900	\$220,000
Sale Price/SF	\$75.01	\$88.75	\$89.34	\$81.75	\$71.87
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	100	\$0.00	\$0.00	\$0.00	\$0.00
Adjusted Sale Price	\$75.01	\$88.75	\$89.34	\$81.75	\$71.87

## Sale Price Comparison:

House Near Well	\$75.01
Houses off Well (Average)	\$82.93
Difference	-\$7.92
% Difference	-9.55%

## Set 4

	12856 Lizzie Pl	3513 Welsh Court	3209 Outlook Court	3501 Confidence	12725 Travers
Distance in Feet	756	2,434	2,158	2,070	1,835
Sale Date	11/18/09	11/25/09	2/25/10	6/23/09	6/30/09
Gross Living Area	3,153	3,147	3,148	3,187	3,201
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$274,665	\$285,757	\$253,000	\$259,871	\$287,740
Sale Price/SF	\$87.11	\$90.80	\$80.37	\$81.54	\$89.89
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	100	\$0.00	\$0.00	\$0.00	\$0.00
Adjusted Sale Price	\$87.11	\$90.80	\$80.37	\$81.54	\$89.89

## Sale Price Comparison:

House Near Well	\$87.11
Houses off Well (Average)	\$85.65
Difference	\$1.46
% Difference	1.71%

This data set exhibited price differentials of -9.55% to 8.76% with an average of 0.85%. As a result, the influence of the proximity to the well site is not considered to be significant.

**CHAPEL CREEK**

The Chapel Creek neighborhood includes the Trial Ridge, Little Chapel Creek, and Westview additions. It is located in west Fort Worth just outside Loop 820 in a rapidly growing residential area. This site is not considered to be particularly comparable to the upscale neighborhoods of Flower Mound but can be considered comparable to some average-priced neighborhoods. It is included in this study because the well site not only contains typical well facilities but also a compressor facility for the well itself and an adjacent compressor station that pressurizes the accompanying gas pipeline. It has two compressor stations on site with sound baffling walls on their west sides. Therefore, one would expect the added noise and nuisance from the compressor station to be evident in the values of neighboring houses.

In the Chapel Creek neighborhood seven sales (subjects) were found to be located at the perimeter of the subdivision nearest the well site. The site is about 900 feet from the nearest of the subjects, which was drilled in September of 2004. Building Superintendent for Classic Century Homes, Don Rought (817-480-8118), indicated that all parties are aware of the well site and the compressor station nearby but that it is a non issue. He reports that Classic Century houses nearest the well sell for the same prices as homes with no well site influence.

**Set 1**

	10908 Wakecrest	10404 Morning Dew	10241 Pleasant Mound	10236 Tustin	10217 Eureka Springs
Distance in Feet	980	2,380	2,900	2,900	3,060
Sale Date	11/9/04	7/29/02	9/28/04	12/30/05	7/13/04
Gross Living Area	1,765	1,779	1,765	1,719	1,879
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$106,500	\$105,000	\$112,500	\$109,999	\$117,400
Sale Price/SF	\$60.34	\$59.02	\$63.74	\$63.99	\$62.48
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$0.00	\$0.00	\$0.00	\$0.00
Adjusted Sale Price	\$60.34	\$59.02	\$63.74	\$63.99	\$62.48
Sale Price Comparison:					
House Near Well					\$60.34
Houses off Well (Average)					\$62.31
Difference					\$1.97
% Difference					3.16%

**Set 2**

	2628 Wakecrest	2429 Concina	10232 Dallam	2745 Briscoe	2740 Wakecrest
Distance in Feet	1,100	2,010	3,270	2,800	1,430
Sale Date	2/28/05	9/12/05	5/10/05	10/22/05	11/22/05
Gross Living Area	1,320	1,214	1,248	1,318	1,582
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$105,000	\$101,350	\$95,000	\$97,500	\$124,028
Sale Price/SF	\$79.55	\$83.48	\$76.12	\$73.98	\$78.40
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$0.00	\$0.00	\$0.00	\$3.92
Adjusted Sale Price	\$79.55	\$83.48	\$76.12	\$73.98	\$82.32
Sale Price Comparison:					
House Near Well					\$79.55
Houses off Well (Average)					\$78.98
Difference					\$0.57
% Difference					0.72%

## Set 3

	2700 Wakecrest	2429 Concina	10232 Dallam	2745 Wakecrest	10233 Dallam
Distance in Feet	1,170	2,010	3,270	1,530	3,430
Sale Date	4/5/05	9/12/05	5/10/05	5/13/05	12/28/06
Gross Living Area	1,200	1,214	1,248	1,200	1,159
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$95,828	\$101,350	\$95,000	\$95,270	\$92,000
Sale Price/SF	\$79.86	\$83.48	\$76.12	\$79.39	\$79.38
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$0.00	\$0.00	\$0.00	\$0.00
<b>Adjusted Sale Price</b>	<b>\$79.86</b>	<b>\$83.48</b>	<b>\$76.12</b>	<b>\$79.39</b>	<b>\$79.38</b>
Sale Price Comparison:					
House Near Well					\$79.86
Houses off Well (Average)					\$79.59
Difference					\$0.26
% Difference					0.33%

## Set 4

	2824 Wakecrest	2529 Ensenada	2816 Wakecrest	2745 Briscoe	10409 Sixpence
Distance in Feet	1,150	2,320	2,010	2,800	2,690
Sale Date	7/14/05	9/23/05	10/28/05	10/22/05	10/31/05
Gross Living Area	1,582	1,565	1,548	1,318	1,801
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$108,731	\$109,500	\$115,000	\$97,500	\$135,000
Sale Price/SF	\$68.73	\$69.97	\$74.29	\$73.98	\$74.96
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	5%	\$0.00	\$0.00	-\$3.70	\$3.75
<b>Adjusted Sale Price</b>	<b>\$68.73</b>	<b>\$69.97</b>	<b>\$74.29</b>	<b>\$70.28</b>	<b>\$78.71</b>
Sale Price Comparison:					
House Near Well					\$68.73
Houses off Well (Average)					\$73.31
Difference					-\$4.58
% Difference					-6.25%

## Set 5

	10233 Wakecrest	2524 Ensenada	10233 Dallam	2605 Ensenada	2501 Concina
Distance in Feet	910	2,110	3,430	2,220	2,010
Sale Date	12/28/06	10/18/06	12/28/06	4/27/07	6/15/07
Gross Living Area	1,159	1,246	1,159	1,254	1,255
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$92,000	\$105,000	\$92,000	\$100,500	\$100,000
Sale Price/SF	\$79.38	\$84.27	\$79.38	\$80.14	\$79.68
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$0.00	\$0.00	\$0.00	\$0.00
<b>Adjusted Sale Price</b>	<b>\$79.38</b>	<b>\$84.27</b>	<b>\$79.38</b>	<b>\$80.14</b>	<b>\$79.68</b>
Sale Price Comparison:					
House Near Well					\$79.38
Houses off Well (Average)					\$80.87
Difference					-\$1.49
% Difference					-1.84%

## Set 6

	2520 Wakecrest	2716 Yoakum	10545 Splitridge	10500 Splitridge	10544 Splitridge
Distance in Feet	980	2,170	2,110	2,110	2,060
Sale Date	6/19/09	9/2/09	4/23/09	5/29/09	11/25/09
Gross Living Area	1,741	1,590	1,493	1,809	1,828
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$129,900	\$108,000	\$111,000	\$142,000	\$132,000
Sale Price/SF	\$74.61	\$67.92	\$74.35	\$78.50	\$72.21
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$0.00	-\$3.72	\$0.00	\$0.00
Adjusted Sale Price	\$74.61	\$67.92	\$70.63	\$78.50	\$72.21

## Sale Price Comparison:

House Near Well	\$74.61
Houses off Well (Average)	\$72.32
Difference	\$2.30
% Difference	3.18%

## Set 7

	2624 Wakecrest	2744 Briscoe	2428 Concina	10545 Splitridge	2112 Whispering Wind
Distance in Feet	1,120	2,690	1,850	2,110	1,950
Sale Date	9/18/09	9/28/09	11/11/09	4/23/09	7/29/09
Gross Living Area	1,424	1,499	1,464	1,493	1,392
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$110,000	\$110,000	\$117,500	\$111,000	\$90,065
Sale Price/SF	\$77.25	\$73.38	\$80.26	\$74.35	\$64.70
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$0.00	\$0.00	\$0.00	\$0.00
Adjusted Sale Price	\$77.25	\$73.38	\$80.26	\$74.35	\$64.70

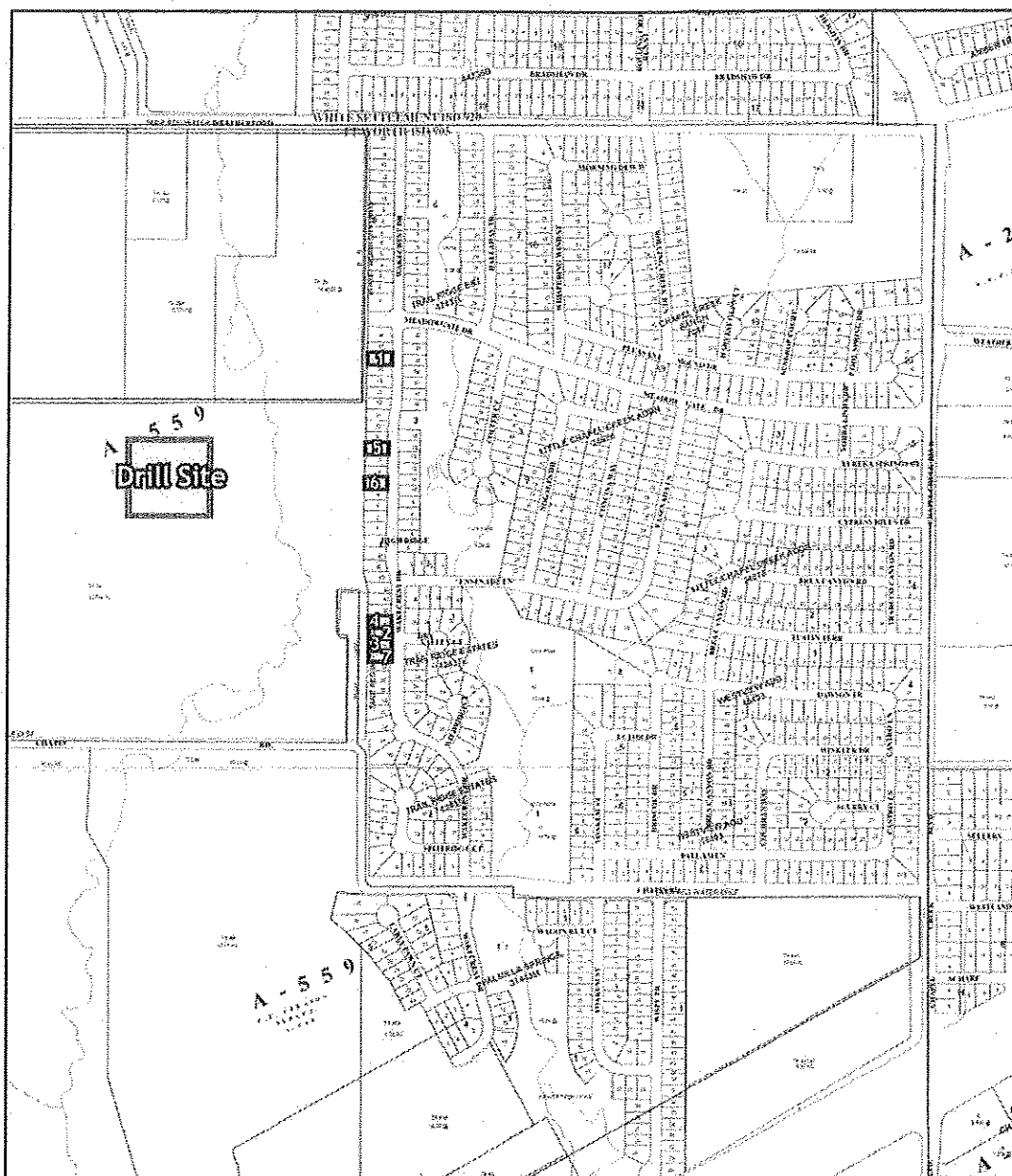
## Sale Price Comparison:

House Near Well	\$77.25
Houses off Well (Average)	\$73.17
Difference	\$4.07
% Difference	5.57%



The Chapel Creek Compressor Station, Fort Worth, Texas





Overall, the average difference in value between sales in close proximity to the well site versus sales off the well site is +0.13%. Given the variance in value estimates due to the imperfect nature of real estate markets and considering that not all elements to value can be accounted for, this result is considered to be essentially a zero impact on residential sale values from proximity to the well site.

Conversations with agents and a builder in this neighborhood reveal that buyers do not consider the well site in their purchasing criteria. In fact, one interview with a buyer in that neighborhood revealed that the well site went almost unnoticed and that the operation of the well site and the compressor station could not be heard. Therefore, the evidence from the Chapel Creek neighborhood indicates no damages to residential properties from close proximity to the well site.

**VAN ZANDT FARMS**

The Van Zandt Farms neighborhood is located in northwest Fort Worth just west of Highway 287 and north of NW Loop 820 in a rapidly growing residential area. This region features subdivisions of estate-size lots as well as conventional tract homes. Two well sites are located on the west and north perimeter of the subdivision. This area was drilled for gas well before subdivisions began moving into this area and the particular wells in question were drilled about August of 2002.

In the Van Zandt Farms neighborhood ten sales (subjects) were found to be located at the perimeter of the subdivision nearest the well site. In this case, three of the sales are resales of properties that sold previously. These sales should give an indication as to how market perception of the well site changed over time.

**Set 1**

	13001 Maida Vale	1040 Morton Hill	925 Morton Hill	957 Chalk Hill	949 Chalk Hill
Distance in Feet	680	2,380	3,750	3,220	3,330
Sale Date	8/6/04	10/31/03	4/14/04	3/1/05	7/20/05
Gross Living Area	3,327	3,290	3,290	3,096	3,204
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Pool	No	No	No	Yes	No
Sale Price	\$297,000	\$287,500	\$285,000	\$280,000	\$299,000
Sale Price/SF	\$89.27	\$87.39	\$86.63	\$90.44	\$93.32
Sale Date Adjustment	5%	\$3.35	\$1.35	-\$2.56	-\$4.45
Pool Adjustment	-13%	\$0.00	\$0.00	-\$11.76	\$0.00
Adjusted Sale Price	\$89.27	\$90.74	\$87.98	\$76.12	\$88.87
<b>Sale Price Comparison:</b>					
House Near Well					\$89.27
Houses off Well (Average)					\$85.93
Difference					\$3.34
% Difference					3.89%

**Set 2**

	12009 Maida Vale	1009 Morton Hill	1040 Morton Hill	11016 Brook Green	904 Polo
Distance in Feet	790	3,120	2,430	2,220	2,010
Sale Date	12/24/03	6/24/03	10/31/03	3/10/04	10/3/05
Gross Living Area	4,033	3,091	3,547	3,713	3,928
Lot Size (AC)	Average	Average	Average	Average	Large
Well	Yes	No	No	No	No
Pool	No	No	No	No	Yes
Sale Price	\$316,500	\$269,000	\$287,500	\$271,577	\$390,000
Sale Price/SF	\$78.48	\$87.03	\$81.05	\$73.14	\$99.29
Sale Date Adjustment	500	\$2.18	\$0.60	-\$0.77	-\$8.83
SF Adjustment	5%	-\$4.35	\$0.00	\$0.00	\$0.00
Pool Adjustment	-13%	\$0.00	\$0.00	\$0.00	-\$12.91
Adjusted Sale Price	\$78.48	\$84.86	\$81.65	\$72.37	\$77.55
<b>Sale Price Comparison:</b>					
House Near Well					\$78.48
Houses off Well (Average)					\$79.11
Difference					-\$0.63
% Difference					-0.80%

## Set 3

	12009 Maida Vale	904 Polo Ct.	11024 Brook Green	10916 Morton Hill	1000 Van Zandt
Distance in Feet	790	2,010	2,060	4,590	2,480
Sale Date	6/26/06	10/3/05	4/30/07	5/11/07	11/12/07
Gross Living Area	4,033	3,928	3,490	3,715	4,312
Lot Size (AC)	Average	Large	Average	Average	Large
Well	Yes	No	No	No	No
Pool	No	Yes	NO	Yes	Yes
Sale Price	\$399,950	\$390,000	\$305,000	\$411,800	\$420,000
Sale Price/SF	\$99.17	\$99.29	\$87.39	\$110.85	\$97.40
Sale Date Adjustment	5%	\$3.62	-\$3.69	-\$4.84	-\$6.72
SF Adjustment	500	\$0.00	\$0.00	\$0.00	\$0.00
Pool Adjustment	-13%	-\$12.91	\$0.00	-\$14.41	-\$12.66
Adjusted Sale Price	\$99.17	\$90.00	\$83.71	\$91.59	\$78.02
Sale Price Comparison:					
House Near Well					\$99.17
Houses off Well (Average)					\$85.83
Difference					\$13.34
% Difference					15.54%

## Set 4

	12013 Maida Vale	1009 Morton Hill	1040 Morton Hill	11016 Brook Green	925 Morton Hill
Distance in Feet	710	3,120	2,430	2,220	3,750
Sale Date	12/12/03	6/24/03	10/31/03	3/10/04	4/14/04
Gross Living Area	3,425	3,091	3,547	3,713	3,290
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Pool	No	No	No	No	No
Sale Price	\$281,250	\$269,900	\$295,000	\$268,577	\$289,900
Sale Price/SF	\$82.12	\$87.32	\$83.17	\$72.33	\$88.12
Sale Date Adjustment	500	\$2.05	\$0.48	-\$0.88	-\$1.50
SF Adjustment	5%	\$0.00	\$0.00	\$0.00	\$0.00
Pool Adjustment	-13%	\$0.00	\$0.00	\$0.00	\$0.00
Adjusted Sale Price	\$82.12	\$89.36	\$83.65	\$71.45	\$86.62
Sale Price Comparison:					
House Near Well					\$82.12
Houses off Well (Average)					\$82.77
Difference					-\$0.65
% Difference					-0.79%

## Set 5

	11208 Round Lane	909 Morton Hill	949 Chalk Hill	900 Morton Hill	941 Chalk Hill
Distance in Feet	710	3,220	2,270	3,010	2,430
Sale Date	10/4/05	4/6/05	7/20/05	4/30/06	5/15/06
Gross Living Area	2,127	2,060	3,204	2,052	2,994
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Pool	No	No	No	No	Yes
Sale Price	\$214,500	\$193,500	\$299,000	\$210,000	\$300,000
Sale Price/SF	\$100.85	\$93.93	\$93.32	\$102.34	\$100.20
Sale Date Adjustment	500	\$2.33	\$0.97	-\$2.92	-\$3.06
SF Adjustment	5%	\$0.00	\$4.67	\$0.00	\$5.01
Pool Adjustment	-13%	\$0.00	\$0.00	\$0.00	-\$13.03
<b>Adjusted Sale Price</b>	<b>\$100.85</b>	<b>\$96.26</b>	<b>\$98.96</b>	<b>\$99.42</b>	<b>\$89.12</b>
<b>Sale Price Comparison:</b>					
House Near Well					\$100.85
Houses off Well (Average)					\$95.94
Difference					\$4.90
% Difference					5.11%

## Set 6

	11208 Round Lane	900 Morton Hill	909 Morton Hill	1017 Morton Hill	11201 Brook Green
Distance in Feet	710	3,010	3,220	2,900	1,320
Sale Date	4/24/07	4/30/06	1/5/07	4/30/07	5/4/07
Gross Living Area	2,127	2,052	2,060	2,679	2,902
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Pool	No	No	No	Yes	Yes
Sale Price	\$215,000	\$210,000	\$204,000	\$269,900	\$305,000
Sale Price/SF	\$101.08	\$102.34	\$99.03	\$100.75	\$105.10
Sale Date Adjustment	5%	-\$2.92	-\$6.21	-\$7.91	-\$8.31
SF Adjustment	500	\$0.00	\$0.00	\$0.00	\$5.25
Pool Adjustment	-13%	\$0.00	\$0.00	-\$13.10	-\$13.66
<b>Adjusted Sale Price</b>	<b>\$101.08</b>	<b>\$99.42</b>	<b>\$92.82</b>	<b>\$79.74</b>	<b>\$88.38</b>
<b>Sale Price Comparison:</b>					
House Near Well					\$101.08
Houses off Well (Average)					\$90.09
Difference					\$10.99
% Difference					12.20%

## Set 7

	11208 Round Lane	1017 Morton Hill	11201 Brook Green	941 Chalk Hill	11017 Christina
Distance in Feet	710	2,900	1,320	2,430	2,900
Sale Date	6/19/08	4/30/07	5/4/07	8/14/09	7/23/09
Gross Living Area	2,127	2,679	2,902	2,944	2,424
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Pool	No	Yes	Yes	Yes	No
Sale Price	\$233,400	\$269,900	\$295,000	\$268,577	\$289,900
Sale Price/SF	\$109.73	100.7465472	\$101.65	\$91.23	\$119.60
Sale Date Adjustment		\$0.00	\$0.00	\$3.16	\$3.92
SF Adjustment	500	\$0.00	\$5.08	\$4.56	\$0.00
Pool Adjustment	-13%	-\$13.10	-\$13.22	-\$11.86	\$0.00
<b>Adjusted Sale Price</b>	<b>\$109.73</b>	<b>\$87.65</b>	<b>\$93.52</b>	<b>\$87.09</b>	<b>\$123.52</b>
<b>Sale Price Comparison:</b>					
House Near Well					\$109.73
Houses off Well (Average)					\$97.94
Difference					\$11.79
% Difference					12.04%

## Set 8

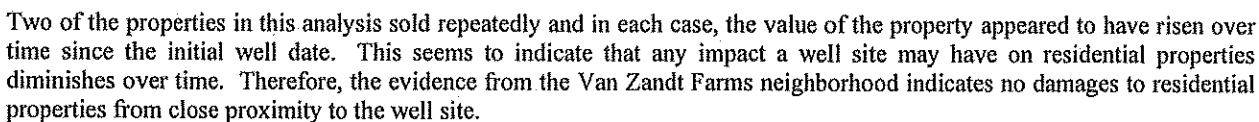
	11324 Round Lane	11024 Brook Green	925 Morton Hill	957 Chalk Hill	1008 Morton Hill
Distance in Feet	890	2,060	3,170	2,170	3,010
Sale Date	8/20/04	3/25/04	4/14/04	3/1/05	7/1/05
Gross Living Area	3,115	3,118	3,290	3,069	3,169
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Pool	No	No	No	Yes	Yes
Sale Price	\$250,700	\$265,900	\$289,900	\$296,000	\$299,900
Sale Price/SF	\$80.48	\$85.28	\$88.12	\$96.45	\$94.64
Sale Date Adjustment	5%	\$1.73	\$1.55	-\$2.55	-\$4.08
SF Adjustment	500	\$0.00	\$0.00	\$0.00	\$0.00
Pool Adjustment	-13%	\$0.00	\$0.00	-\$12.54	-\$12.30
<b>Adjusted Sale Price</b>	<b>\$80.48</b>	<b>\$87.01</b>	<b>\$89.66</b>	<b>\$81.36</b>	<b>\$78.25</b>
<b>Sale Price Comparison:</b>					
House Near Well					\$80.48
Houses off Well (Average)					\$84.07
Difference					-\$3.59
% Difference					-4.27%

## Set 9

	11316 Round Lane	1040 Morton Hill	11016 Brook Green	11024 Brook Green	925 Morton Hill
Distance in Feet	730	2,430	2,220	2,060	3,170
Sale Date	2/17/04	10/31/03	3/10/04	3/25/04	4/14/04
Gross Living Area	3,609	3,547	3,713	3,118	3,290
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Pool	No	No	No	No	No
Sale Price	\$252,500	\$287,500	\$271,577	\$256,000	\$285,000
Sale Price/SF	\$69.96	\$81.05	\$73.14	\$82.10	\$86.63
Sale Date Adjustment	5%	\$1.21	-\$0.22	-\$0.42	-\$0.68
SF Adjustment	500	\$0.00	\$0.00	\$0.00	\$0.00
Pool Adjustment	-13%	\$0.00	\$0.00	\$0.00	\$0.00
Adjusted Sale Price	\$69.96	\$82.26	\$72.92	\$81.69	\$85.95
Sale Price Comparison:					
House Near Well					\$69.96
Houses off Well (Average)					\$80.71
Difference					-\$10.74
% Difference					-13.31%

## Set 10

	11308 Round Lane	941 Chalk Hill	11337 Brook Green	11024 Christina	11017 Christina
Distance in Feet	640	2,430	1,850	2,430	2,640
Sale Date	7/24/09	8/14/08	7/14/09	7/20/09	7/23/09
Gross Living Area	2,560	2,944	2,816	3,015	2,424
Lot Size (AC)	Average	Average	Large	Average	Average
Well	Yes	No	No	No	No
Pool	No	Yes	No	Yes	No
Sale Price	\$231,750	\$284,000	\$265,000	\$345,000	\$229,900
Sale Price/SF	\$90.53	\$96.47	\$94.11	\$114.43	\$94.84
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	500	\$0.00	\$0.00	\$0.00	\$0.00
Pool Adjustment	-13%	-\$12.54	\$0.00	-\$14.88	\$0.00
Adjusted Sale Price	\$90.53	\$83.93	\$94.11	\$99.55	\$94.84
Sale Price Comparison:					
House Near Well					\$90.53
Houses off Well (Average)					\$93.11
Difference					-\$2.58
% Difference					-2.77%



**HILLS OF ARGYLE**

The Hills of Argyle is a neighborhood located in north Argyle, south of Denton just east of Highway 377. Homes in this neighborhood were constructed from the late 90's to about 2006. The subdivision wraps an area of older construction. Average sale price in this neighborhood is about \$430,000, with estate-size lots. Three well sites are located around the perimeter of the subdivision that were drilled from 2002 to 2006.

Sales of homes that have views of the wells were found in this subdivision. In each case, only sales that occurred after the drill date of the nearest well were utilized for comparison.

Set 1					
	1700 Wickwood	2017 Winthrop	2008 Winthrop	2017 Winthrop	2008 Winthrop
Distance in Feet	574	2,575	2,117	2,575	2,117
Sale Date	4/29/05	6/29/07	9/28/06	2/17/06	10/31/05
Gross Living Area	5,500	4,530	4,297	4,530	4,297
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$610,000	\$535,000	\$445,000	\$655,379	\$520,000
Sale Price/SF	\$110.91	\$118.10	\$103.56	\$144.68	\$121.01
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	-\$10.25	-\$13.40	-\$10.25	-\$13.40
Adjusted Sale Price	\$110.91	\$107.85	\$90.16	\$134.43	\$107.62
Sale Price Comparison:					
House Near Well					\$110.91
Houses off Well (Average)					\$110.01
Difference					\$0.89
% Difference					0.81%



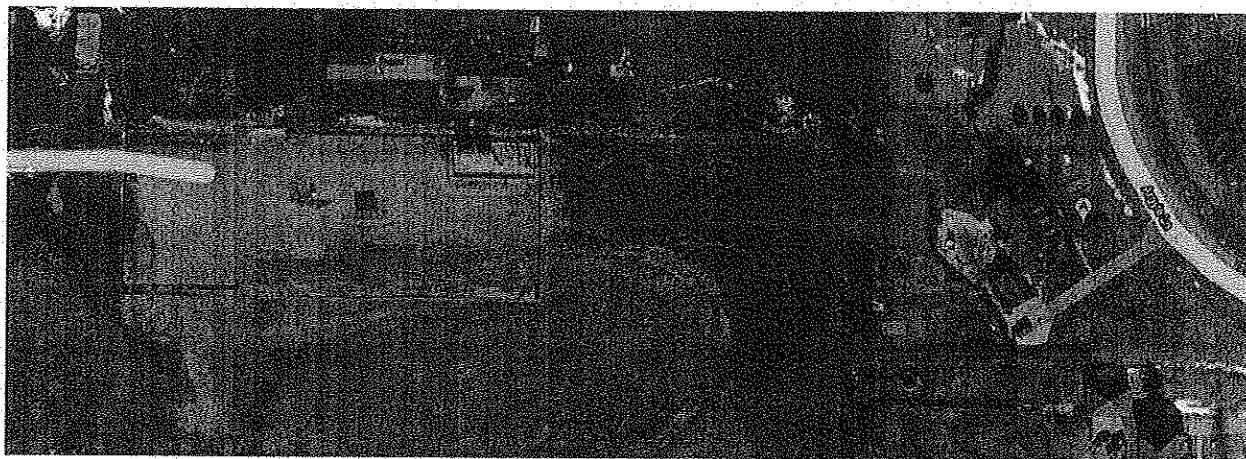
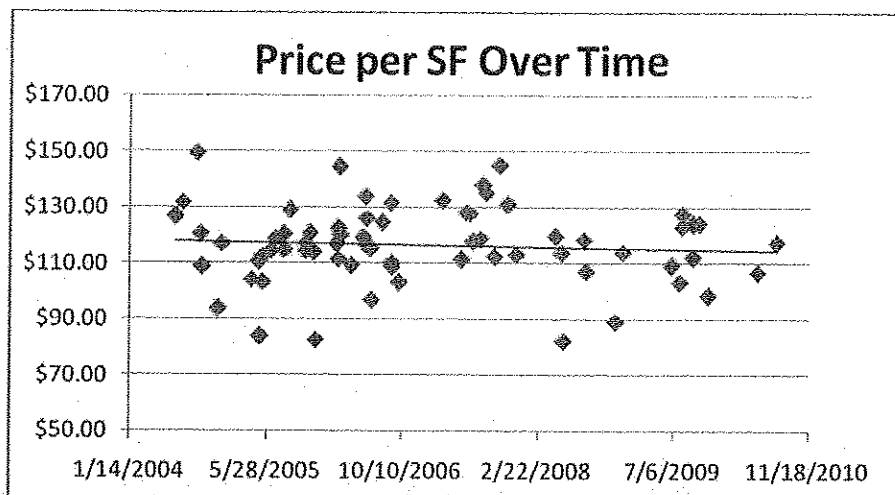
*Point A represents 1700 Wickwood Court, Argyle, TX*



## Set 2

	4408 Argyle Lane	4805 Snowhill	4709 Snowhill	2709 Kerry Court	2000 Warwick
Distance in Feet	597	928	972	793	1,714
Sale Date	5/14/10	12/29/08	7/23/10	5/16/08	7/29/09
Gross Living Area	2,993	2,900	3,060	3,200	3,379
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$320,000	\$332,000	\$360,000	\$365,000	\$350,000
Sale Price/SF	\$106.92	\$114.48	\$117.65	\$114.06	\$103.58
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$0.00	\$0.00	\$2.88	\$5.09
Adjusted Sale Price	\$106.92	\$114.48	\$117.65	\$116.94	\$108.67
<b>Sale Price Comparison:</b>					
House Near Well					\$106.92
Houses off Well (Average)					\$114.44
Difference					-\$7.52
% Difference					-6.57%

Based on sale priced trends in the neighborhood, there appears to be insufficient value changes between 2005 and 2006 to warrant adjustment.



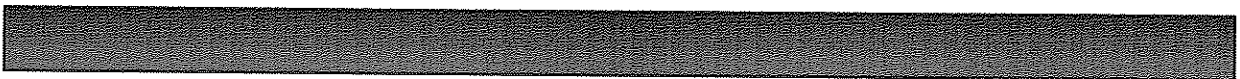
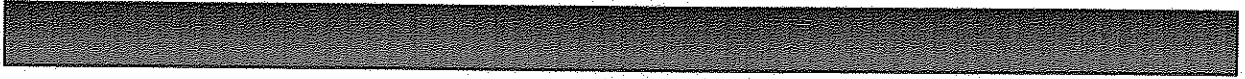
Point A represents 4408 Argyle Lane, Argyle, TX

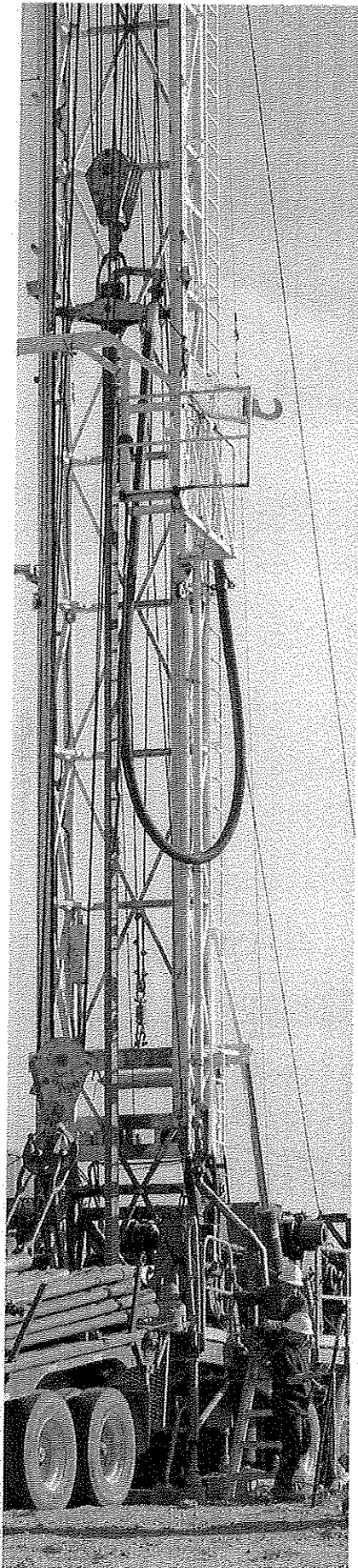
## Set 3

	2401 Winthrop	4209 Carlisle	2505 Chipping	4601 Upper Glenwic	2713 Kerry Co
Distance in Feet	624	1,658	1,257	1,054	967
Sale Date	11/13/09	10/8/09	6/30/09	8/20/08	9/18/09
Gross Living Area	4,000	3,856	3,932	4,015	3,029
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$395,000	\$480,000	\$430,000	\$432,000	\$377,500
Sale Price/SF	\$98.75	\$124.48	\$109.36	\$107.60	\$124.63
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$0.00	\$0.00	\$0.00	-\$14.48
Adjusted Sale Price	\$98.75	\$124.48	\$109.36	\$107.60	\$110.14
Sale Price Comparison:					
House Near Well					\$98.75
Houses off Well (Average)					\$112.90
Difference					-\$14.15
% Difference					-12.53%



Point A represents 2401 Winthrop Hill Road, Argyle, TX

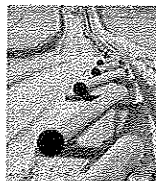
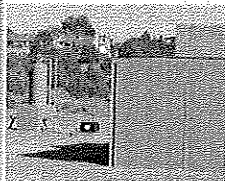




# Health Survey Results

of Current and Former DISH/Clark,  
Texas Residents

EARTHWORKS' OIL AND GAS  
ACCOUNTABILITY PROJECT



Texas Oil & Gas

**Accountability** Project

# **Results of Health Survey of Current and Former DISH/Clark, Texas Residents**

December 2009

by Wilma Subra  
Subra Company

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On behalf of EARTHWORKS'  
Oil and Gas Accountability Project





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## Executive Summary

The following health survey for DISH, Texas residents was compiled by Wilma Subra on behalf of Earthworks' Oil & Gas Accountability Project. The health survey was completed by a total of 31 individuals between the ages of 4 and 69 during October and November of 2009. Participants consisted of 30 current residents and one previous resident of DISH, Texas.

Of the population surveyed 19% considered themselves to be sick, or both healthy and sick. 81% considered themselves to be healthy. However, 39% of the population reported frequency of illness on average of three days per week and five days per month with a maximum of seven days per week and all days of the month. Participants reported 130 medical conditions and of the conditions the survey identifies 23 most prevalent medical conditions. 71% of participants reported having respiratory ailments.

### Notable results from the survey include:

1. A summary of odor events experienced by participants, odor frequencies and possible odor sources, and
2. A comparison of health effects reported by the community with the known effects of chemicals found in the DISH area by Wolf Eagle Environmental in August of 2009.

First, 28 of the 31 individuals surveyed experienced odor events. Frequency of odor events ranged from one to two times per day to 24 days per month. Participants associated odors with specific facilities in the DISH area including, compressor stations, gas processing plants and metering stations, natural gas pipelines, gas wells, sewer systems and pastures.

Second, the human health impacts reported during the survey were compared to the health impacts associated with toxic air emission chemicals detected in the ambient air of DISH in August 2009, in excess of TCEQ screening levels. 61% of the health impacts reported by participants are known health effects of chemicals detected in the air by Wolf Eagle Environmental in August 2009. These chemicals include

- Volatile Organic Chemicals,
- Hazardous Air Pollutants, and
- Tentatively Identified Compounds.

The health effects associated with these chemicals and reported by the survey participants are included below.

**61%**

Health effects reported  
by the DISH community  
were associated with  
toxics measured in excess  
of TCEQ screening levels

Abnormal EEG  
Brain disorders  
Bronchitis  
Chronic Eye Irritation  
Decreased Motor Skills  
Depression  
Dizziness  
Eyes Burning  
Falling, Staggering  
Frequent Irritation  
Frequent Nausea  
Increased Fatigue  
Irregular/Rapid Heart Beat  
Muscle Aches & Pains  
Nasal Irritation  
Pre-Cancerous Lesions  
Severe Anxiety  
Severe Headaches  
Sinus Problems  
Throat Irritation  
Tired  
Weakness  
Allergies  
Difficulty in Concentrating  
Easy Bruising  
Nervous System Impacts  
Difficulty in Breathing




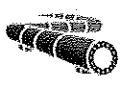




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### Recommendations based on this survey include:

- Community health investigation and long-term tracking by the Texas Department of State Health Services,
- Community-based documentation and tracking of odors and symptoms by Texas Commission on Environmental Quality,
- Increased tracking of operational upsets, spills, releases and permit violations of oil and gas infrastructure by both the Texas Commission on Environmental Quality and Texas Railroad commission, and
- The continuous monitoring of area emissions by Texas Commission on Environmental Quality.

### Odors Associated with Sources in the DISH Area

Individuals responding to the health survey reported odors associated with specific types of facilities in the DISH area:

					
gas wells	natural gas pipelines	compressor stations	gas processing plants / metering stations	sewer	pastures
Natural gas smell	Odorized natural gas	Sulfur smell Odorized natural gas Ozone Burnt butter	Sulfur smell Odorized natural gas Burnt wile Strong chemical like smell Ether	Septic odors	Hay and grass smells
<b>REPORTED EFFECTS</b> headaches nausea sinus problems asthma	<b>REPORTED EFFECTS</b> headaches nausea sinus problems asthma	<b>REPORTED EFFECTS</b> burning eyes nausea headaches running nose sore throat asthma sinus problems	<b>REPORTED EFFECTS</b> burning eyes nausea headaches running nose sore throat asthma sinus problems bronchitis	<b>REPORTED EFFECTS</b> infection of airways irritation of sinus and throat	

### Duration of Health Impacts

Associated with odor events

Airway Infection .....	1-3 weeks
Allergies .....	24 hours after odors dissipates
Bronchitis .....	1 week
Burning and Irritated Throat .....	Until smell goes away
Chest Congestion .....	1-3 days
Hard to Breathe .....	2-3 days
Headache .....	4 hours to one week
Irritated Eyes .....	1-2 days
Nasal Irritation .....	1 week
Nausea .....	Until smell goes away
Respiratory Irritation .....	24 hours after odor dissipates
Sinus Irritation .....	1-3 days
Sinus with Plugged Ears .....	10-20 days

Odor events were reported to be as often as twice per day.



## Introduction

A health survey instrument for current and former DISH/Clark, Texas residents was compiled by Wilma Subra of Subra Company on behalf of EARTHWORKS' Oil and Gas Accountability Project. The health survey instrument was distributed to current and former DISH/Clark residents. The health survey forms were filled out during the months of October and November 2009. The results of the health survey were evaluated by Wilma Subra of Subra Company.

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## Health Survey Participants

A total of 31 individuals between the ages of 4 and 69 participated in the health survey. The individuals consisted of 30 current residents of DISH/Clark and one previous resident of DISH/Clark. Fourteen households were surveyed. The individuals participating in the survey consisted of 15 females and 16 males.

## Participant Ages

31 Total Participants between the ages of 4 and 69

15 Females between the ages of 19 and 67

16 Males between the ages of 4 and 69

Age Range	Number of Females	Number of Males
0-5	0	2
6-10	0	2
11-15	0	1
16-20	1	0
21-30	1	1
31-40	3	2
41-50	4	3
51-60	4	3
61-70	2	2

## Years Lived in DISH/Clark

The 31 participants in the survey lived in DISH/Clark an average of 8.5 years and ranged from three months to 25 years. One of the 31 individuals surveyed had lived in DISH for four years but had relocated 5 months prior to the survey.

## General Health of Individuals Surveyed

Of the total of 31 individuals surveyed, 21 considered themselves healthy, 4 individuals considered themselves sick and one individual, both healthy and sick. Five individuals did not respond to this question.



## General Health

21 Individuals between the ages of 4 and 69	Healthy	81%
4 Individuals between the ages of 5 and 59	Sick	15%
1 individual age 49	Healthy and Sick	4%

### Females

11 Individuals between the ages 19 and 64	Healthy	92%
1 Individual age 26	Sick	8%

### Males

10 Individuals between the ages of 4 and 69	Healthy	72%
3 Individuals between the ages of 5 and 59	Sick	21%
1 Individual age 49	Healthy and Sick	7%

## Frequency of Illness

The four individuals who reported their general health as sick, reported the frequency of their illnesses as three to seven days per week, and one day, two days and every day per month. The individual who reported his general health as healthy and sick, reported the frequency of his illness as one day per week and three days per month.

Six of the 21 individuals who reported their general health as healthy, reported their frequency of illness as seven days per week and one, two and four days per month. Two of the five individuals who did not report their general health as healthy or sick, responded to the frequency of their illness as two days per month and up to five days per month.

Thus, even though 21 of the 31 individuals surveyed reported their general health as healthy, six individuals reported their frequency of illness as much as four days per month and seven days per week. Two of the five individuals who did not report the condition of their general health, reported their frequency of illness as two to five days per month. Thus 12 of the 31 individuals survey (39% of the population surveyed) reported frequency of illnesses on average of three days per week and five days per month with a maximum of seven days per week and all days per month.

## Access to Doctors and Health Care Providers

Of the 31 individuals responding to the survey, 30 individuals (97%) had access to doctors. Twenty-six of 31 individuals (84%) had access to other health care providers, four individuals did not and one individual did not respond.

## Occupational Exposure

Four of the 31 individuals surveyed reported occupational exposure. None of the individuals surveyed reported exposure to chemicals from family member work places transported into their homes.

Two individuals employed as air craft mechanics (68 year old male and 37 year old male) reported exposure to jet fuel (25 years and 13 years), ammonia (23 years), acetone (23 years) and MEK (3 years). One individual, employed as a truck driver (49 year old male), reported exposure to creosote (1 year) and hydrochloric acid (1 year). The fourth individual (36 year



old female) reported occupational exposure to anesthetics - Isoflurene and cleaners - Rocal and Parvosal for 11 years.

One air craft mechanic reported his general health as healthy, the other did not respond to the general health question. The truck driver reported his general health as both healthy and sick. The female reported her general health as healthy.

### **Smoking History**

A total of 14 households were surveyed. Seven of the 14 households were nonsmoking households. Four households were occupied by smokers and three households were occupied by past smokers.

Twenty of the 31 individuals surveyed have never smoked. Seventeen of the twenty individuals did not have any other member of the household that smoked. Three individuals, who have never smoked, have other members of the household who are smokers eight individuals currently smoke, two individuals had smoked in the past and one individual did not provide information on smoking history.

The eight individuals who are current smokers have smoked for two to 34 years with an average smoking history of 23 years. Six of the current smokers are long term smokers who have smoked for 20 to 34 years. The smokers currently smoke a half to two packs of cigarettes per day.

The eight current smokers consist of five males and three females. The five males range in age from 22 to 59 and have smoked from two to 30 years. The three females who are current smokers range in age from 50 to 55 and have smoked for 20 to 34 years.

The two past smokers are 48 and 68 year old males who had smoked a pack to a pack and a half of cigarettes per day for 15 and 20 years.



## Odors and Associated Health Impacts

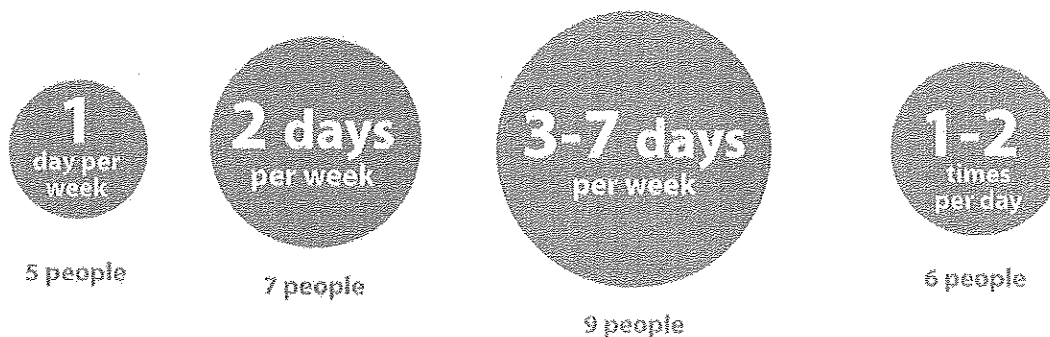
### Odor Events

Twenty-eight of the 31 individuals surveyed experienced odor events. Three individuals did not report experiencing odor events.

### Frequency of Odor Events and Number of Individuals Experiencing the Odor Events

Frequency of Odor Events	Individuals Experiencing Events
1-2 times per day	6
1 day per week	5
2 days per week	7
3 days per week	4
6 days per week	1
7 days per week	4
2 days per month	4
3 days per month	4
5 days per month	3
10 days per month	4
12 days per month	2
20 days per month	3
24 days per month	1

Note: Odors are more predominant when the wind is out of the south.



Number of people experiencing odor events and the frequency of the events.

## **Odors Associated with Sources in the DISH Area**

Individuals responding to the health survey reported odors associated with specific types of facilities in the DISH area.

### **Compressor Stations**

- Sulfur
- Odorized Natural Gas Smell
- Ozone
- Burnt Butter Smell

### **Gas Processing Plants/Gas Metering Stations**

- Sulfur
- Odorized Natural Gas Smell
- Burnt Wire
- Strong Chemical Like Smell
- Ether

### **Natural Gas Pipe Lines**

- Odorized Natural Gas

### **Gas Wells**

- Natural Gas Smell

### **Sewer System**

- Septic odors

### **Pastures**

- Hay and Grass Smells

## **Health Impacts Associated with Odor Events**

### **Sulfur, Rotten Egg Smell**

- Burning Eyes
- Nausea
- Headaches
- Runny Nose
- Sore Throat
- Asthma
- Sinus Problems

### **Odorized Natural Gas**

- Headaches
- Nausea
- Chronic Sinus Infections
- Asthma
- Hypertension
- Indigestion

### **Burnt Wire**

- Burning Throat

### **Ether**

- Bronchitis



### Sewer Smell

Infection of air ways

Irritation of sinus and throat

### Duration of Health Impacts Associated with Odor Events

Health Impact	Duration of Health Impacts
Airway Infection	1-3 weeks
Allergies	24 hours after odors dissipates
Bronchitis	1 week
Burning and Irritated Throat	Until smell goes away
Chest Congestion	1-3 days
Hard to Breathe	2-3 days
Headache	4 hours to one week
Irritated Eyes	1-2 days
Nasal Irritation	1 week
Nausea	Until smell goes away
Respiratory Irritation	24 hours after odor dissipates
Sinus Irritation	1-3 days
Sinus with Plugged Ears	10-20 days

### Distance from Surveyed Households to Compressor Stations and Gas Processing Plants/Gas Metering Stations

Distance	Number of Households
50 Feet	1
100 Feet or less	3
600 Feet	1
1,000 Feet	2
0.5 miles	3
Less than 1 mile	1
1 to 2 miles	1

Note: Two households surveyed did not report distances.

### Medical Conditions Reported in the DISH/Clark Health Survey

In addition to the requested information concerning odor events and related health impacts, the health survey requested information on specific medical symptoms and diseases from each individual completing the survey. The symptoms reported in the odor events and related health impacts section of the survey were specifically requested to be included in this section of the survey.

A total of 165 medical symptoms and diseases were reported by the 31 individuals who completed the DISH/Clark Health Survey forms. Twenty-three medical conditions were the



most prevalent conditions reported by the 31 individuals surveyed in the DISH/Clark Health Survey.

Medical Condition	# of Individuals Surveyed	% of Individuals Surveyed
Sinus Problems	18	58
Throat Irritation	17	55
Allergies	17	55
Weakness and Fatigue	17	55
Eye Irritation	16	52
Nasal Irritation	15	48
Joint Pain	14	45
Muscle Aches and Pains	13	42
Breathing Difficulties	13	42
Vision Impairment	13	42
Severe Headaches	12	39
Sleep Disturbances	12	39
Swollen and Painful Joints	12	39
Frequent Irritation	10	32
Skin Irritation	10	32
Wheezing	9	29
Frequent Nausea	9	29
Ringing in Ears	9	29
Decreased Motor Skills	8	26
Loss of Sexual Drive	8	26
Bronchitis	7	23
Easy Bruising	7	23
Difficulty in Concentrating	7	23

In addition to these 23 most prevalent medical conditions, the survey identified more than 130 medical conditions and medical symptoms each occurring in a small number of individuals. Two females have neurological conditions - neuromuscular disorder, dystonia and muscular/skeletal disorder. Additional medical conditions occurring in a small number of individuals range from lung, liver and kidney disorders, brain disorders, strokes, thyroid problems, internal bleeding, frequent nose bleeds, and bone conditions, to high blood pressure, depression, anxiety, tremors, and behavioral changes.

A preliminary review of the first initial group of health surveys obtained on October 12, 2009, resulted in the following health conditions being reported by individuals completing the health survey. The results of the preliminary review were consistent with the medical conditions identified by the entire 31 individuals completing the survey.

## Health Effects Reported by DISH Community as of October 12, 2009

Abnormal EEG*	Abnormal Mammogram	Allergies
Amnesia	Brain Disorders*	Bronchitis*
Chronic Eye Irritation*	Decreased Motor Skills*	Depression*
Difficulty in Concentrating	Dizziness*	Easy Bruising
Endometriosis	Enlarged Spleen	Excessive Sweating
Eyes Burning*	Falling, Staggering*	Forgetfulness
Frequent Irritation*	Frequent Nausea*	Frequent Nose Bleeds
Increased Fatigue*	Irregular/Rapid Heart Beat*	Joint Pain
Lump in Breast	Muscle Aches & Pains*	Nasal Irritation*
Nervous System Impacts	Persistent Cough	Pre-Cancerous Lesions*
Ringing in Ears	Severe Anxiety*	Severe Headaches*
Shortness of Breath	Sinus Problems*	Sleep Disturbances
Sores & Ulcers Mouth	Strokes	Throat Irritation*
Thyroid Problems	Urinary Infections	Weakness* & Tired*

\*Health Impacts Associated with Chemicals present in Excess of TCEQ Short and Long Term Effects Screening Levels in the air of DISH

## Respiratory Impacts

Twenty-two of the 31 individuals surveyed (71%) reported having respiratory ailments.

Sinus Problems	18/31	58%
Throat Irritation	17/31	55%
Breathing Difficulties	13/31	42%
Wheezing	9/31	29%
Bronchitis	7/31	23%
<b>TOTAL</b>	<b>22/31</b>	<b>71%</b>

## Respiratory Impacts as it Relates to Smokers and Non-Smokers

Of the 22 individuals that had respiratory ailments, 12 never smoked, 8 were current smokers, one had smoked in the past, and 1 individual did not respond to the smoking request for information. Overall, 20 individuals of the 31 individuals surveyed had never smoked.

Therefore 60% of the nonsmokers surveyed had respiratory problems. Overall 8 individuals were current smokers; therefore 100% of the current smokers had respiratory problems. Overall 2 individuals had smoked in the past. Thus, 50% of the previous smokers had respiratory problems.

## Individuals with Most Medical Conditions

The 31 individuals surveyed had an average of 20.5 medical conditions reported in the Health Surveys (range 0 to 46). The individuals with the largest number of reported health symptoms were a 49 year old male and a 55 year old female. They each reported 46 medical conditions. The 49 year old male, a nonsmoker truck driver, reported his general health as sick and healthy and reported being sick one day per week and three days per month. He also reported experiencing odor events once per day, one day per week and 12 days per month. The 55 year old female reported her health as healthy, did not report the number of times sick



and listed odor events as two days per month. She is a smoker and has smoked for 30 plus years.

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### **Correlation of Chemicals Detected in the Ambient Air of DISH with the Health Impacts Experienced by Community Members in DISH/Clark**

Wolf Eagle Environmental sampled the ambient air in DISH at seven locations from August 17 to 18, 2009. The air samples were analyzed for Volatile Organic Chemicals, Hazardous Air Pollutants, Tentatively Identified Compounds and NOX. Sixteen chemicals were detected in the ambient air of DISH in excess of Texas Commission on Environmental Quality (TCEQ) Short-term and Long-term Effects Screening Levels. These chemicals consisted of Benzene, Carbon Disulfide, 1,2,4-Trimethylbenzene, Xylene, Naphthalene, Carbonyl Sulfide, Trimethyl Benzene, Methyl-Methylethyl Benzene, Tetramethyl Benzene, Methyl Pyridine, Dimethyl Disulfide, Methyl Ethyl Disulphide, Ethyl-Methylethyl Disulfide, Diemethyl Pyridine, and Diethyl Benzene. The health impacts associated with the chemicals detected in the air of DISH in excess of TCEQ Short-term and Long-term Effects Screening Levels correspond to the health impacts being experienced by DISH community members.

### **Human Health Effects Associated with Chemicals Detected in the air in Excess of TCEQ Short and Long-Term Effects Screening Levels:**

#### **Acute Health Effects**

Irritates skin, eyes, nose, throat and lungs  
Headaches  
Dizziness, Light Headed  
Nausea, Vomiting  
Skin Rashes  
Fatigue  
Tense and Nervous  
Personality Changes  
Depression, Anxiety, Irritability  
Confusion  
Drowsiness  
Weakness  
Muscle Cramps  
Irregular Heartbeat (arrhythmia)

#### **Chronic Health Effects**

Damage to Liver and Kidneys  
Damage to lungs  
Damage to Developing Fetus  
Causes Reproductive Damage  
Damages Nerves Causing Weakness and Poor Coordination  
Affects Nervous System  
Affects the Brain  
Leukemia  
Aplastic Anemia  
Changes in Blood Cells  
Affects Blood Clotting Ability  
Carcinogen  
Mutagen  
Teratogen — Developmental Malformations

The most prevalent health impacts reported by individuals surveyed during the Health Survey and the health impacts associated with odor events correspond to the health effects of chemicals detected in the air in DISH in excess of the TCEQ Short-term and Long-term Effects Screening Levels.



**Most Prevalent Health Impacts and Health Impacts Associated with Odor Events**  
**With the associated chemicals known to cause those health impact. These**  
**chemicals exceeded TCEQ short-term and long-term effects screening levels in**  
**the air of DISH.**

**Allergies**

Benzene, Xylenes, Naphthalene, Trimethyl  
Benzene, Diethyl Benzene, Carbonyl Sulfide,  
Dimethyl Disulfide, Methyl Ethyl Disulphide,  
Ethyl-Methylethyl Disulfide

**Breathing Difficulties**

Benzene, Xylenes, Naphthalene, Trimethyl  
Benzene, Methyl-Methylethyl Benzene,  
Tetramethyl Benzene, Diethyl Benzene,  
Carbonyl Sulfide, Dimethyl Disulfide, Methyl  
Ethyl Disulphide, Ethyl-Methylethyl Disulfide

**Bronchitis**

Trimethyl Benzene

**Difficulty in Concentrating**

Naphthalene

**Easy Bruising**

Benzene

**Eye Irritation**

Benzene, Xylenes, Naphthalene, Trimethyl Benzene, Methyl-Methylethyl Benzene, Tetramethyl  
Benzene, Diethyl Benzene, Carbon Disulfide, Carbonyl Sulfide, Methyl Ethyl Disulphide, Ethyl-  
Methylethyl Disulfide

**Frequent Irritation**

Carbon Disulfide

**Frequent Nausea**

Benzene, Xylenes, Naphthalene, Diethyl Benzene, Carbon Disulfide, Carbonyl Sulfide, Dimethyl  
Disulfide, Methyl Pyridine, Dimethyl Pyridine

**Muscle Aches and Pains**

Carbonyl Sulfide

**Nasal Irritation**

Benzene, Xylenes, Naphthalene, Diethyl Benzene, Carbonyl Sulfide, Dimethyl Disulfide, Methyl  
Ethyl Disulphide, Ethyl-Methylethyl Disulfide

**Severe Headaches**

Benzene, Xylenes, Naphthalene, Trimethyl Benzene, Methyl-Methylethyl Benzene, Tetramethyl  
Benzene, Diethyl Benzene, Carbon Disulfide, Methyl Pyridine, Dimethyl Pyridine

**Sinus Problems**

Benzene, Xylenes, Naphthalene, Diethyl Benzene, Carbonyl Sulfide, Dimethyl Disulfide, Methyl  
Ethyl, Disulphide, Ethyl-Methylethyl Disulfide

**61%**

Health effects reported  
by the DISH community  
were associated with  
toxics measured in excess  
of TCEQ screening levels

Abnormal EEG  
Brain disorders  
Bronchitis  
Chronic Eye Irritation  
Decreased Motor Skills  
Depression  
Dizziness  
Eyes Burning  
Falling, Staggering  
Frequent Irritation  
Frequent Nausea  
Increased Fatigue  
Irregular/Rapid Heart Beat  
Muscle Aches & Pains  
Nasal Irritation  
Pre-Cancerous Lesions  
Severe Anxiety  
Severe Headaches  
Sinus Problems  
Throat Irritation  
Tired  
Weakness  
Allergies  
Difficulty in Concentrating  
Easy Bruising  
Nervous System Impacts  
Difficulty in Breathing



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**Skin Irritation**

Benzene, Xylenes, Naphthalene, Trimethyl Benzene, Methyl-Methylethyl Benzene, Tetramethyl Benzene, Diethyl Benzene, Carbon Disulfide, Carbonyl Sulfide, Methyl Ethyl Disulphide, Ethyl-Methylethyl Disulfide

**Throat Irritation**

Benzene, Xylenes, Naphthalene, Trimethyl, Benzene, Methyl-Methylethyl Benzene, Tetramethyl Benzene, Diethyl Benzene, Carbonyl, Sulfide, Dimethyl Disulfide, Methyl Ethyl Disulphide, Ethyl-Methylethyl Disulfide

**Vision Impairment**

Carbonyl Sulfide, Naphthalene

**Weakness and Fatigue**

Carbonyl Sulfide, Carbon Disulfide, Dimethyl Disulfide, Naphthalene

These chemicals  
exceeded TCEQ  
short-term and  
long-term levels in  
the air of DISH, TX

The medical conditions reported by DISH community members in the Health Survey correspond to the health conditions associated with the toxic air pollutants present in the air of DISH during August 2009 in excess of the TCEQ Short-term and Long-term Effects Screening Levels.

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**Summary**

Thirty-one individuals (15 females and 16 males) completed the DISH/Clark Health Survey. Thirty individuals were current residents of DISH/Clark and one was a previous resident. Fourteen households were surveyed.

Eighty-one percent of the individuals surveyed considered themselves healthy, 15% sick and 4% both healthy and sick. Thirty-nine percent of the population surveyed reported frequency of illnesses an average of three days per week and five days per month, with a maximum of seven days per week and all days per month.

Twenty-eight of the 31 individuals surveyed experienced odor events. The frequency of odor events occurred up to 7 days per week and 24 days per month. Odors were more predominant when the wind was out of the south, transporting emissions from the area of the compressor stations and gas plants towards the residential areas of DISH.

The individuals surveyed identified the sources of odors as compressor stations, gas processing plants/gas metering stations, natural gas lines, gas wells, sewer system and pastures. The community members identified substantial health impacts due to odor events associated with the compressor stations, gas processing plants and gas metering stations. These sources were identified as being located 50, 100, 600, and 1,000 feet from most of the homes surveyed and 0.5 to 2 miles from other surveyed homes.

A total of 165 medical symptoms and diseases were reported by the 31 individuals who completed the DISH/Clark Health Survey forms. Twenty-three medical conditions were the most prevalent conditions reported by the 31 individuals surveyed. These most prevalent health conditions included sinus problems, throat irritation, allergies, weakness and fatigue, eye irritation, nasal irritation, joint pain, muscle aches and pains, breathing difficulties, vision impairment, severe headaches, sleep disturbances, swollen and painful joints, frequent irritation, skin irritation, wheezing, frequent nausea, ringing in ears, decreased motor skills, loss



of sexual drive, bronchitis, easy bruising and difficulty in concentrating. In addition to these 23 most prevalent medical conditions, the survey identified more than 130 medical conditions and medical symptoms each occurring in a small number of individuals. Two females have neurological conditions - neuromuscular disorder, dystonia and muscular/skeletal disorder. Additional medical conditions occurring in a small number of individuals each, range from lung, liver and kidney disorders, brain disorders, strokes, thyroid problems internal bleeding, frequent nose bleeds, and bone conditions, to high blood pressure, depression, anxiety, tremors, and behavioral changes. Twenty-two of the 31 individuals surveyed (71%) reported having respiratory ailments.

The human health impacts reported during the survey were compared to the health impacts associated with the toxic air emission chemicals detected in the ambient air of DISH in August 2009, in excess of TCEQ Short-term and Long-term Effects Screening Levels. The medical conditions reported by DISH community members in the Health Survey correspond to the health conditions associated with the toxic air pollutants present in the ambient air of DISH during August 2009 in excess of the TCEQ Short-term and Long-term Effects Screening Levels.

### **Recommendations**

In order to further evaluate the health impacts being experienced by DISH community members, The Texas Department of State Health Services should, at a minimum, test the blood of community members for a Comprehensive Metabolic Panel, Hepatic Profile and CBC. In addition, the Health Agency should be requested to evaluate the exposure of residents through the use of biomonitoring parameters for the chemicals of concern in the blood and urine of current and past DISH residents. The overall health impacts being experienced by DISH residents (past and present) should be tracked over time through surveys and follow up consultations.

The Texas Commission on Environmental Quality should establish a process of documenting Odors and Symptoms should be established by which community members can document odor events and associated health impacts. The Odor and Symptom Logs should contain reporting of date, time, location, description of odors, wind speed and direction, health impacts, associated with the odor events, possible sources of the odors, duration of the odor event and duration of health impacts

Increased tracking of operational upsets, spills, releases and permit violations of the compressor stations, gas processing stations, gas metering stations, wells and pipelines in the DISH area should also be put in place by the Texas Commission on Environmental Quality and the Texas Railroad Commission.

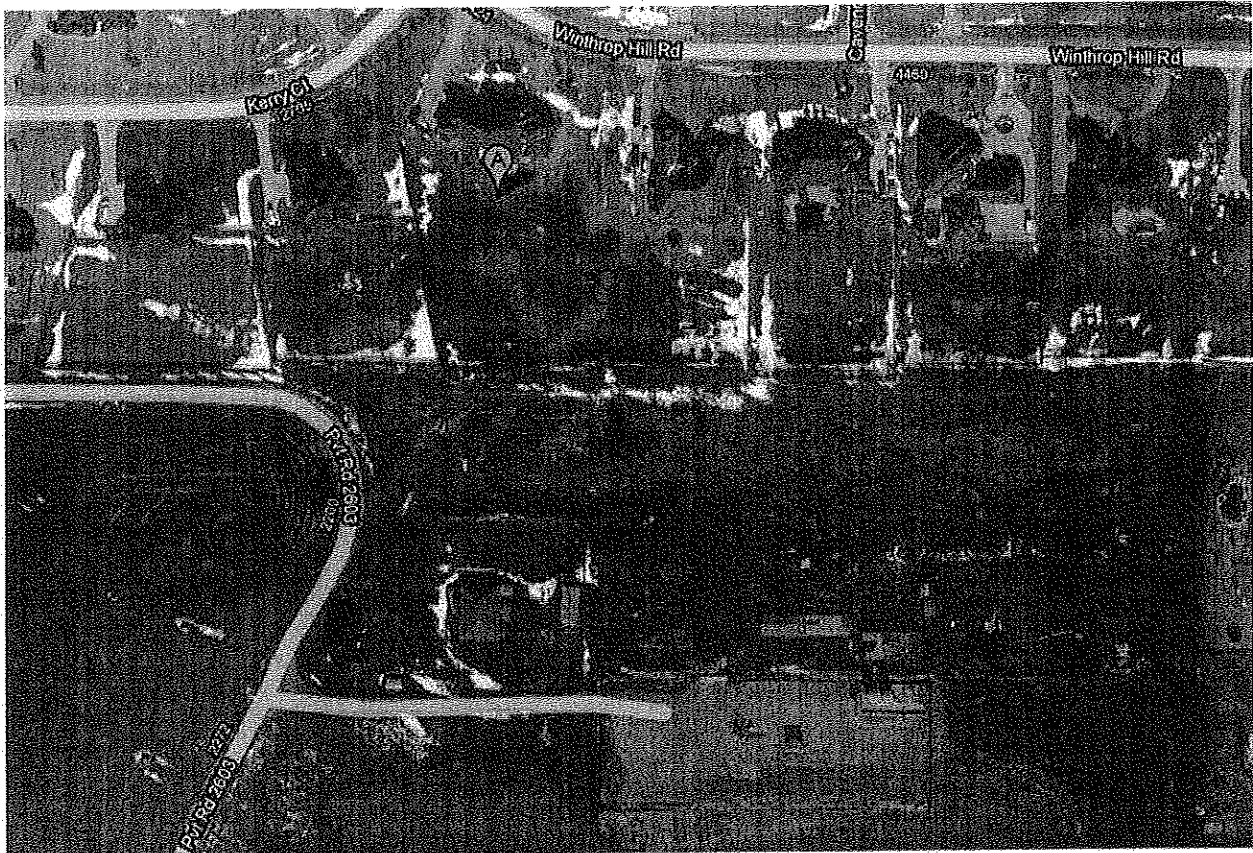
A continuous monitoring network should be established by the Texas Commission on Environmental Quality to monitor speciated Volatile Organic Chemicals, Hazardous Air Pollutants, Sulphur compounds and meteorological conditions in the DISH area.

The recommended measures are needed to further define the negative human health impacts being experienced by DISH community members, address appropriate medical intervention and treatment, identify the specific sources of the chemical emissions and pathways of human health exposure, and implement measures needed to reduce chemicals being emitted into the air of the DISH area.



## Set 4

	2601 Winthrop	4601 Upper Glenwick	2309 Cavendish	2408 Cavindish	2205 Chipping Cam
Distance in Feet	620	1,054	1,052	963	1,692
Sale Date	5/10/05	11/23/05	10/13/05	10/13/05	7/29/05
Gross Living Area	3,750	3,579	3,669	3,752	3,808
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$389,000	\$297,000	\$430,000	\$430,000	\$438,000
Sale Price/SF	\$103.73	\$82.98	\$117.20	\$114.61	\$115.02
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$0.00	\$0.00	\$0.00	\$0.00
Adjusted Sale Price	\$103.73	\$82.98	\$117.20	\$114.61	\$115.02
Sale Price Comparison:					
House Near Well					\$103.73
Houses off Well (Average)					\$107.45
Difference					-\$3.72
% Difference					-3.46%



Point A represents 2601 Winthrop Hill Road, Argyle, TX

Value differences in this neighborhood ranged from -12.53% to 6.36% with an average affect of -4.05%. Data from this subdivision indicates that sales with immediate views of well sites are impacted negatively by proximity to the well. The sale at 1700 Wickwood has a partially obstructed view of the well site and it is the only sale out of the four from this neighborhood that does not indicate well proximity impact.

**BUTTON SITE**

Canyon Oaks is the nearest neighborhood to the Button well site which was drilled relatively recently. The neighborhood is located in Copper Canyon on the west side of Copper Canyon Road, north of FM 407. Average sale price in this neighborhood is about \$400,000, with estate-size lots.

One home was found to have sold near the well site after drilling. It is located across Copper Canyon Road from the drill site and has a view of the site from its back yard. The well was drilled in June of 2008 and the nearest sale occurred in late June of 2008. Negotiations for the property would have been taking place while the drill site was in preparation. Therefore, any change in property value attributable to proximity to the well site should reflect the near-term affect.

**Set 1**

	500 Canyon Oaks	175 Pheasant	440 Canyon Oak	160 Canyon Oak	150 Canyon Oak
Distance in Feet	581	2,904	739	1,637	1,531
Sale Date	6/20/08	7/11/08	8/12/08	7/9/09	12/21/09
Gross Living Area	3,113	3,870	3,400	3,084	3,255
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$324,000	\$427,500	\$405,000	\$380,500	\$375,000
Sale Price/SF	\$104.08	\$110.47	\$119.12	\$123.38	\$115.21
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$8.95	\$3.86	\$0.00	\$0.00
<b>Adjusted Sale Price</b>	<b>\$104.08</b>	<b>\$119.42</b>	<b>\$122.98</b>	<b>\$123.38</b>	<b>\$115.21</b>
<b>Sale Price Comparison:</b>					
House Near Well					\$104.08
Houses off Well (Average)					\$120.25
Difference					-\$16.17
% Difference					-13.45%

The drill site appears to have impacted the purchase price of the property by about -13.45%. In terms of whole dollars, the house sold for \$324,000, while the comparable properties sold for an average of \$397,000, before adjustment. Comparables that were over 200 square feet in living area difference were adjusted by 5% to account for size differences. No adjustment for date of sale was necessary since it appears sale prices in the neighborhood have been stable, as illustrated below.

Year	Average Sale Price per SF
2007	\$111.47
2008	\$110.09
2009	\$112.92
2010	\$112.87

**CONNELL SITE**

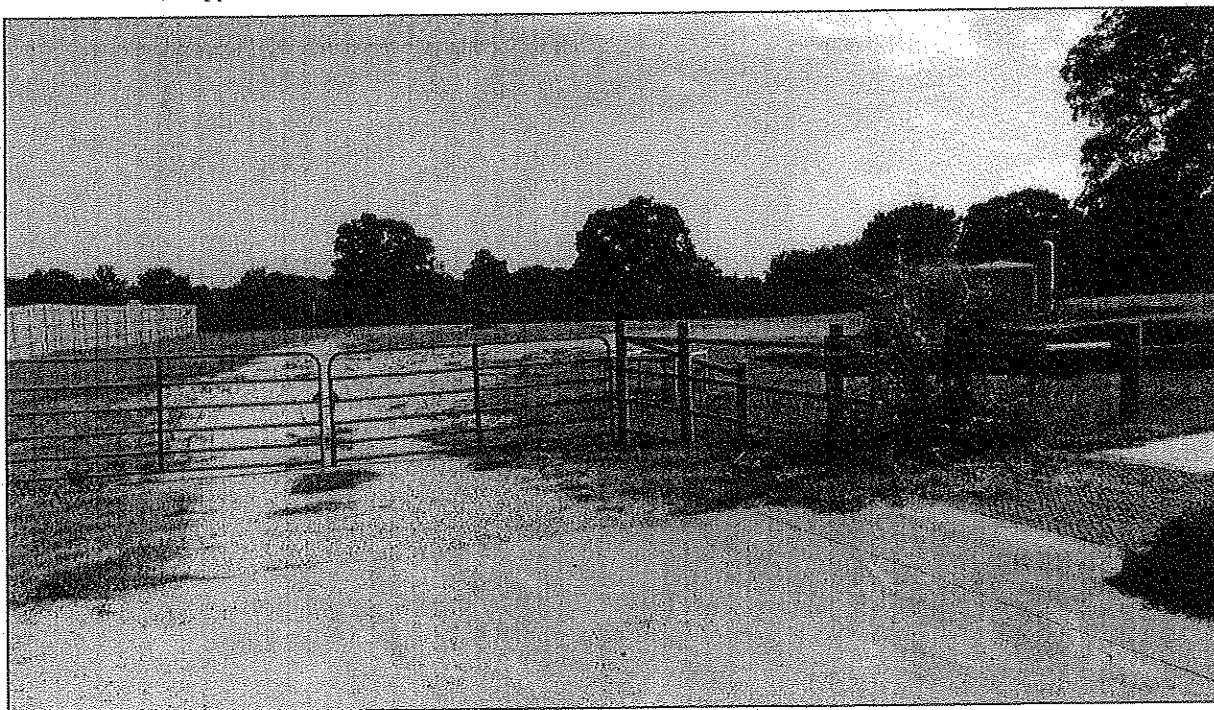
The Connell site is located adjacent to the Lexington Park subdivision in Denton. It is primarily a spec-home subdivision. The well was drilled in 2003 and the subdivision was constructed following. The neighborhood is located west of Teasley Lane between E. Ryan Road and Hickory Creek Road. Average sale price in this neighborhood is about \$175,000.

One home was found to have sold near the well site after drilling. It is located immediately adjacent to the well site and also backs up to a small lake. The lake is considered to be a positive externality. The house was constructed in 2008; a full five years after drilling took place. Therefore, any change in property value attributable to proximity to the well site should reflect the long-term affect. The site is infrequently visited but truck traffic must drive in front of the house on Bay Meadow Drive to access the site.

**Set 1**

	4316 Bay Meadow	2104 Fairmount	2405 Belmont	2201 Del Mar	2300 Prescott
Distance in Feet	295	655	1,539	1,656	1,293
Sale Date	7/15/09	6/10/10	4/23/09	6/30/10	9/15/09
Gross Living Area	2,683	2,663	2,683	2,818	2,984
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$240,000	\$204,000	\$210,000	\$185,000	\$230,000
Sale Price/SF	\$89.45	\$76.61	\$78.27	\$65.65	\$77.08
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$0.00	\$0.00	\$0.00	\$3.12
<b>Adjusted Sale Price</b>	<b>\$89.45</b>	<b>\$76.61</b>	<b>\$78.27</b>	<b>\$65.65</b>	<b>\$80.20</b>
<b>Sale Price Comparison:</b>					
House Near Well					\$89.45
Houses off Well (Average)					\$75.18
Difference					\$14.27
% Difference					18.98%

The drill site appears to have no impact on the purchase price of the property, even though it is less than 300 feet from the wellhead. In fact, it appears that the proximity to the lake was a much more important factor in sale than the well.



*View of the Connell Well Site from Bay Meadow Drive Terminus*



**CROW-WRIGHT SITE**

The Crow-Wright pad site 4 is located near Tour 18 in west Flower Mound. Tour 18 is a master-planned and gated community. Homes in the area of the sale below are typically 6,000 to 7,000 square feet. A compressor station is located near the Crow-Wright pad 4 that services a natural gas transmission line. The well was drilled in April of 2007 and the house at 8904 Baltusrol sold in June of 2010. The sale is a trustee sale from foreclosure so the property should exhibit a marked price differential from surrounding market transactions and from properties located farther from the well and compressor station. The compressor station can be seen through the trees from the house and from the second story.

The house is not located immediately adjacent to the natural gas facilities and it is a foreclosure, making it less than ideal for comparison. However, it is one of the few upscale houses in the Flower Mound area that is located near a compressor station. Only sales that are not located on the golf course were utilized, which caused us to limit the number of comparables to three.

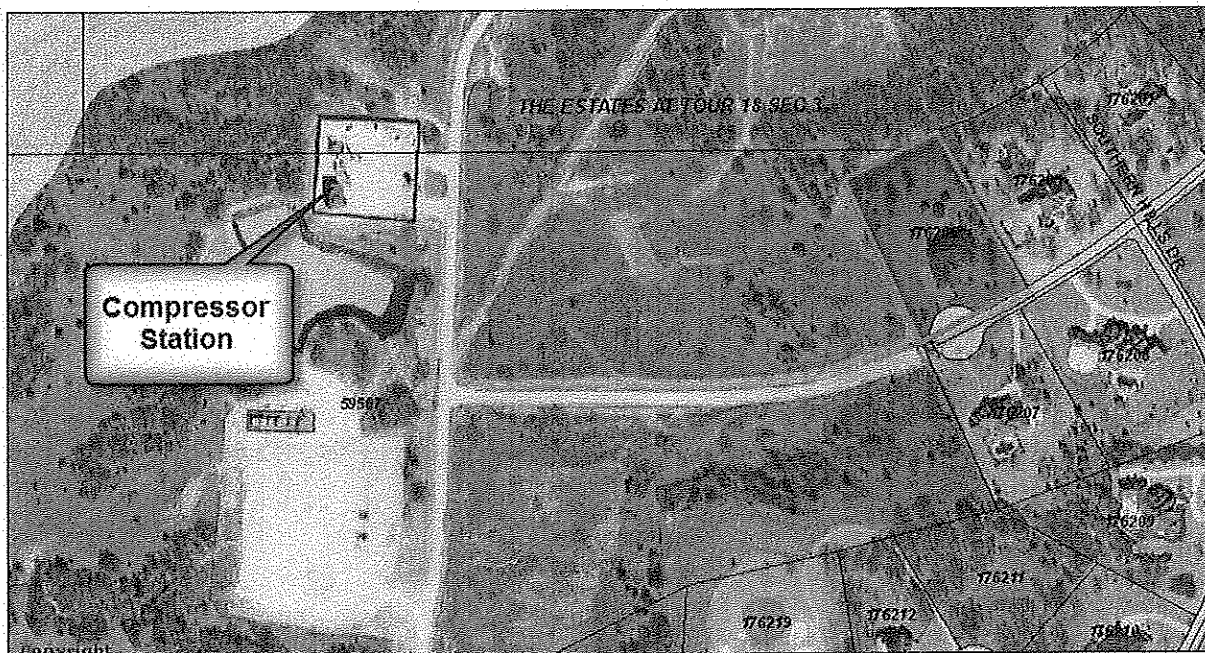
**Set 1**

	8904 Baltusrol	5704 Lighthouse	6104 Sawgrass	6009 Pine Valley
Distance in Feet	1,274	4,162	3,473	2,194
Sale Date	6/25/10	2/17/10	9/25/09	12/29/09
Gross Living Area	6,806	7,503	6,029	6,067
Lot Size (AC)	Average	Average	Average	Average
Well	Yes	No	No	No
Sale Price	\$769,900	\$875,000	\$900,000	\$699,000
Sale Price/SF	\$113.12	\$116.62	\$149.28	\$115.21
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00
SF Adjustment	300	\$5.74	-\$7.96	-\$7.53
Adjusted Sale Price	\$113.12	\$122.36	\$141.32	\$107.69

**Sale Price Comparison:**

House Near Well	\$113.12
Houses off Well (Average)	\$123.79
Difference	-\$10.67
% Difference	-8.62%

The results of this set show a negative price differential. However, this property was a foreclosure and it required substantial remodel after purchase. Therefore, we consider these results to be inconclusive.





## CUMMINGS C WEST SITE

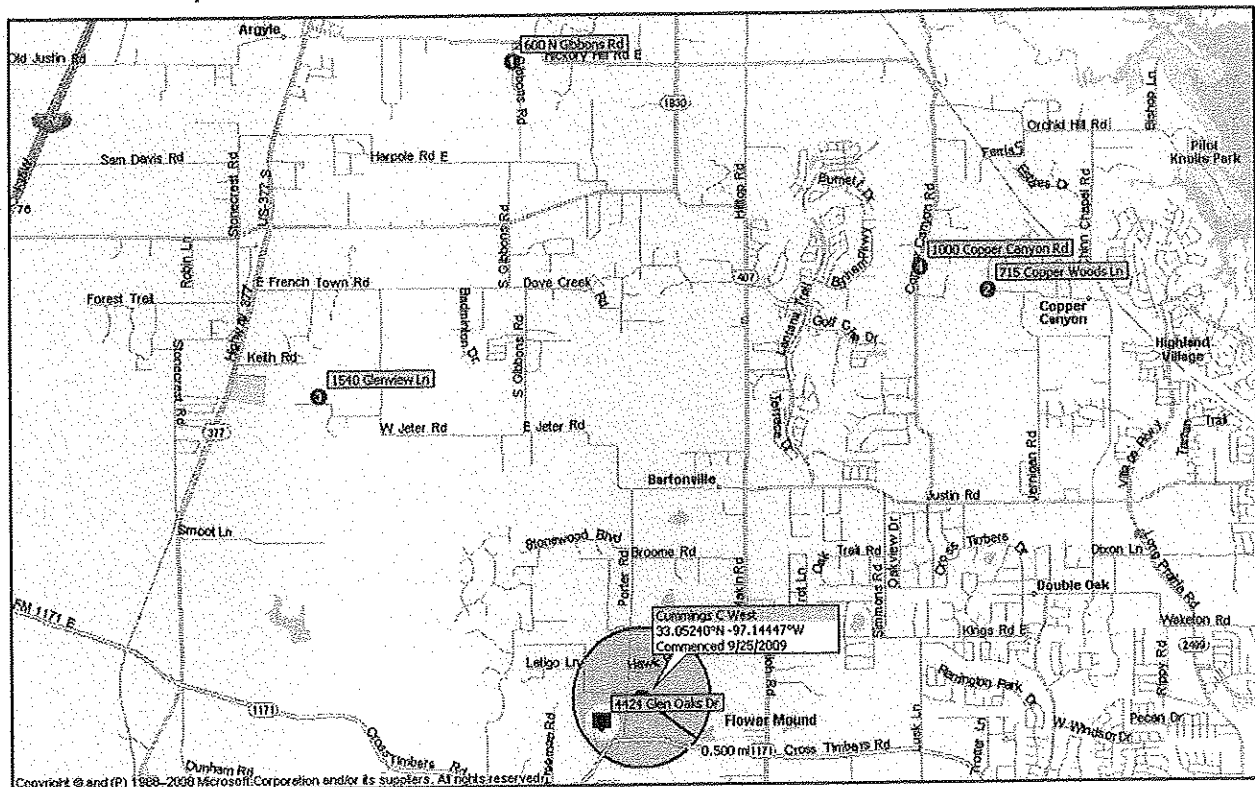
The Cummings C West site is located east of Red Rock (Porter) Road in Flower Mound, just north of FM 1171. It is not located adjacent to any residential subdivisions. However, a sale at 4424 Glen Oaks occurred in December of 2009. The well was drilled in September of 2009. The house is within one-half mile of the drill site, which has had operations ongoing since drilling began. There is a tree buffer between the house and the drill site.

This sale is included because it is a high dollar value purchase. If there is an impact on the purchase price at this distance it could indicate how well proximity affects upscale homes.

## Set 1

	4424 Glen Oaks	600 N Gibbons	715 Copper Woods	1540 Glenview	000 Copper Canyon
Distance in Feet	1,882	2,397	4,830	2,179	2,972
Sale Date	12/8/09	2/27/09	5/4/09	7/6/10	4/28/10
Gross Living Area	5,024	5,367	4,697	5,365	5,312
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$885,000	\$740,000	\$789,000	\$761,500	\$1,000,000
Sale Price/SF	\$176.15	\$137.88	\$167.98	\$141.94	\$188.25
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	300	\$4.15	-\$4.52	\$4.13	\$0.00
Adjusted Sale Price	\$176.15	\$142.03	\$163.46	\$146.07	\$188.25
Sale Price Comparison:					
House Near Well					\$176.15
Houses off Well (Average)					\$159.95
Difference					\$16.20
% Difference					10.13%

The drill site appears to have no impact on the purchase price of the property. It is either too far or its view is obstructed so as to be of little importance.



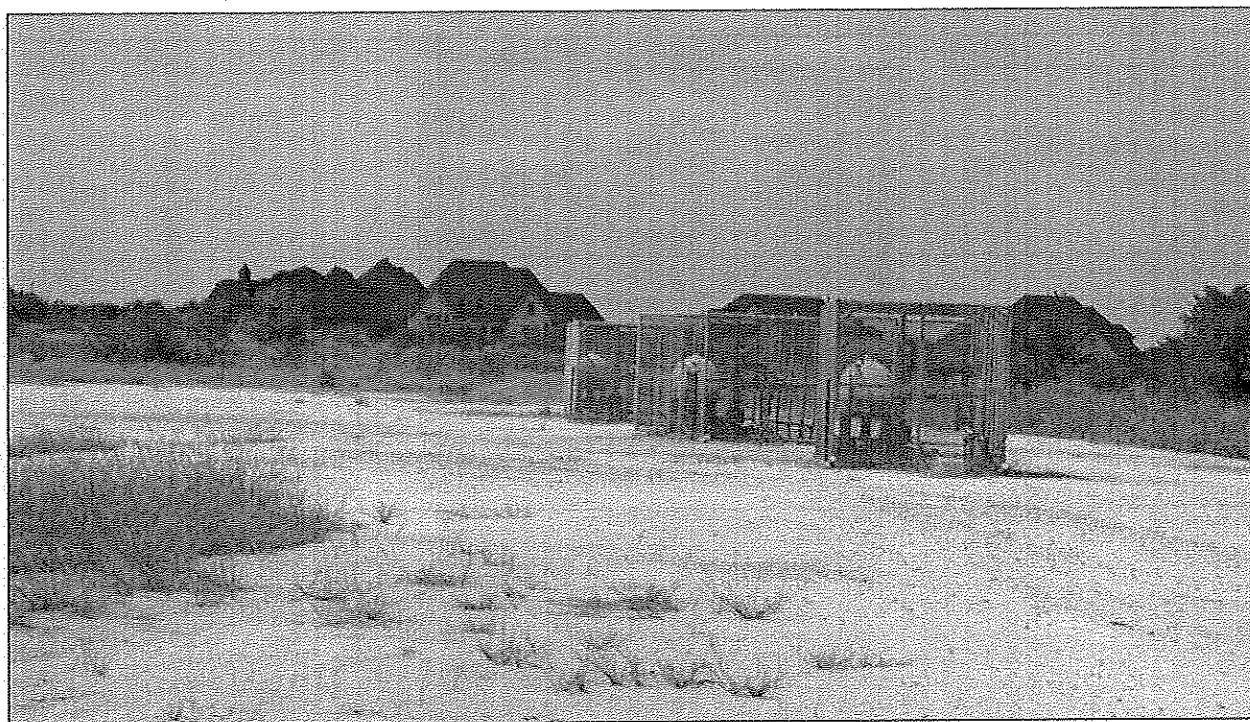
**DENTON COUNTRY CLUB**

The Denton Country Club (DCC) site is located east of SH 377 in Argyle, south of Denton. The site has five visible wellheads, storage tanks, and related facilities. The Country Club Village subdivision is located near the site with the closest sale being about 950 feet from the wellheads. The sale and other houses along Fairway Drive have a clear view of the well site and the storage tanks. The earliest well was drilled in November of 2006, while most houses were constructed from 2004 to 2007. There is some vegetation between the subdivision and the well but most is low scrub. Houses in the subdivision average around \$500,000 to \$550,000.

**Set 1**

	3308 Fairway Dr	8209 Sawgrass	3200 Fairway D	8208 Sawgrass	3216 Clubview
Distance in Feet	948	1,590	1,201	1,379	1,728
Sale Date	6/3/07	6/18/07	8/14/07	9/16/08	5/15/09
Gross Living Area	4,190	4,243	3,117	3,516	5,016
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$539,000	\$544,000	\$463,000	\$465,000	\$555,000
Sale Price/SF	\$128.64	\$128.21	\$148.54	\$132.25	\$110.65
Sale Date Adjustment	6%	-\$0.32	-\$1.76	-\$10.24	-\$12.95
SF Adjustment	200	\$0.00	-\$22.32	-\$12.43	\$10.68
Adjusted Sale Price	\$128.64	\$127.90	\$124.47	\$109.59	\$108.37
Sale Price Comparison:					
House Near Well					\$128.64
Houses off Well (Average)					\$117.58
Difference					\$11.06
% Difference					9.41%

The drill site appears to have no impact on the purchase price of the property, which was found to be 9.41% higher than the comparables.



*View of the houses on Fairway Drive from the DCC well site with wellheads in foreground*

**ENGLER SITE**

The Marshall Ridge subdivision wraps the Engler well site in Keller. It is located off SH 377 north of Ridge Pointe Drive. The site has three visible wellheads, storage tanks, and related facilities and is surrounded by a brick wall. It shares a property line with the neighboring subdivision. Marshall Ridge is a Meritage Homes subdivision and is mostly spec. Houses in the subdivision range from \$200,000 to \$400,000 and were built in 2008 and 2009. Construction in the development is ongoing. The wells were drilled in 2006.

**Set 1**

	1728 Sterling Trace	416 Misty Ridge	1970 Lewis Cross	1920 Lewis Cross	1743 Sterling Tr
Distance in Feet	225	976	1,558	1,492	484
Sale Date	5/26/09	11/17/09	5/3/10	2/19/10	5/3/10
Gross Living Area	3,046	3,046	2,978	2,600	3,721
Lot Size (AC)	0.25	0.20	0.16	0.16	0.275
Well	Yes	No	No	No	No
Sale Price	\$325,200	\$313,000	\$283,990	\$235,000	\$386,500
Sale Price/SF	\$106.76	\$102.76	\$95.36	\$90.38	\$103.87
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	300	\$0.00	\$0.00	-\$6.85	\$7.24
Lot Size Adjustment	5%	\$0.00	\$4.77	\$4.52	\$0.00
<b>Adjusted Sale Price</b>	<b>\$106.76</b>	<b>\$102.76</b>	<b>\$100.13</b>	<b>\$88.05</b>	<b>\$111.11</b>
<b>Sale Price Comparison:</b>					
House Near Well					\$106.76
Houses off Well (Average)					\$100.51
Difference					\$6.25
% Difference					6.22%

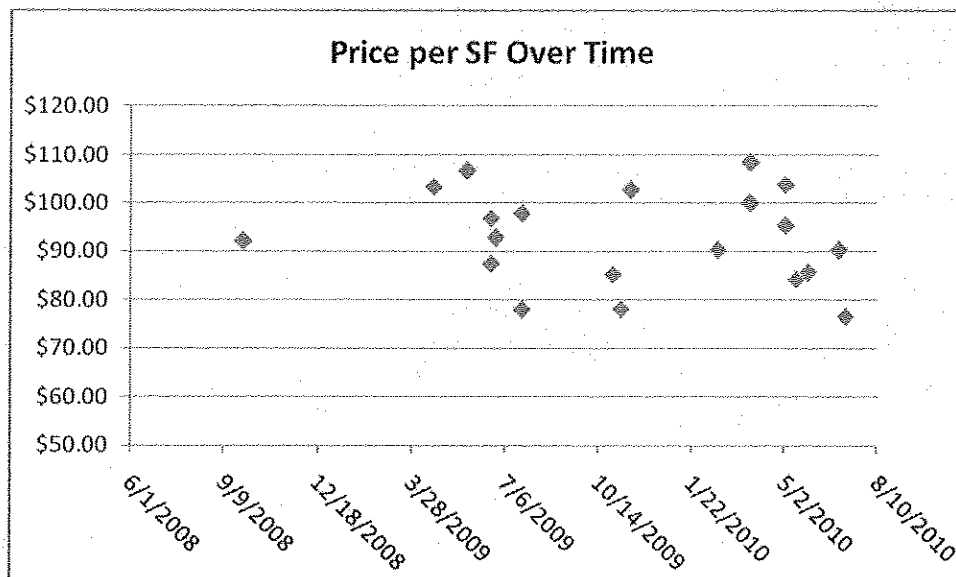
**Set 2**

	1736 Sterling Trace	319 Hidden Cove	305 Creekhaven C	1721 Grand Meado	424 Crystal Glen
Distance in Feet	281	473	800	1,975	1,125
Sale Date	7/7/10	7/23/09	9/29/08	11/6/09	10/29/09
Gross Living Area	4,894	4,800	3,724	3,200	3,517
Lot Size (AC)	0.28	0.30	0.3	0.16	0.187
Well	Yes	No	No	No	No
Sale Price	\$375,000	\$469,812	\$343,000	\$250,000	\$300,000
Sale Price/SF	\$76.62	\$97.88	\$92.11	\$78.13	\$85.30
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	300	\$0.00	-\$10.81	-\$18.21	-\$13.47
Lot Size Adjustment	5%	\$0.00	\$0.00	\$3.91	\$4.26
<b>Adjusted Sale Price</b>	<b>\$76.62</b>	<b>\$97.88</b>	<b>\$81.30</b>	<b>\$63.82</b>	<b>\$76.10</b>
<b>Sale Price Comparison:</b>					
House Near Well					\$76.62
Houses off Well (Average)					\$79.77
Difference					-\$3.15
% Difference					-3.95%

## Set 3

	1740 Sterling Trace	319 Hidden Cove	305 Creekhaven C	1721 Grand Meado	424 Crystal Glen
Distance in Feet	320	473	800	1,975	1,125
Sale Date	6/20/09	7/23/09	9/29/08	11/6/09	10/29/09
Gross Living Area	4,042	4,800	3,724	3,200	3,517
Lot Size (AC)	0.32	0.30	0.3	0.16	0.187
Well	Yes	No	No	No	No
Sale Price	\$391,667	\$469,812	\$343,000	\$250,000	\$300,000
Sale Price/SF	\$96.90	\$97.88	\$92.11	\$78.13	\$85.30
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	300	\$5.69	-\$3.08	-\$9.48	-\$5.38
Lot Size Adjustment	5%	\$0.00	\$0.00	\$3.91	\$4.26
Adjusted Sale Price	\$96.90	\$103.57	\$89.03	\$72.55	\$84.19
<b>Sale Price Comparison:</b>					
House Near Well					\$96.90
Houses off Well (Average)					\$87.33
Difference					\$9.57
% Difference					10.95%

Sale prices in the subdivision appear to be stable enough to not warrant time adjustments, as illustrated by the chart and table below.



Year	Average Price/SF
2008	\$92.11
2009	\$94.77
2010	\$95.36

It appears the builders of the Marshall Ridge development have made lots larger (and thus more desirable) near the well site to offset possible value changes as a result of near proximity to the wells. This appears to equalize if not overcompensate for any loss in value due to proximity to the well. The lots that are farther from the well are smaller and therefore have smaller houses but the small lots also make the overall property less valuable, all else equal.

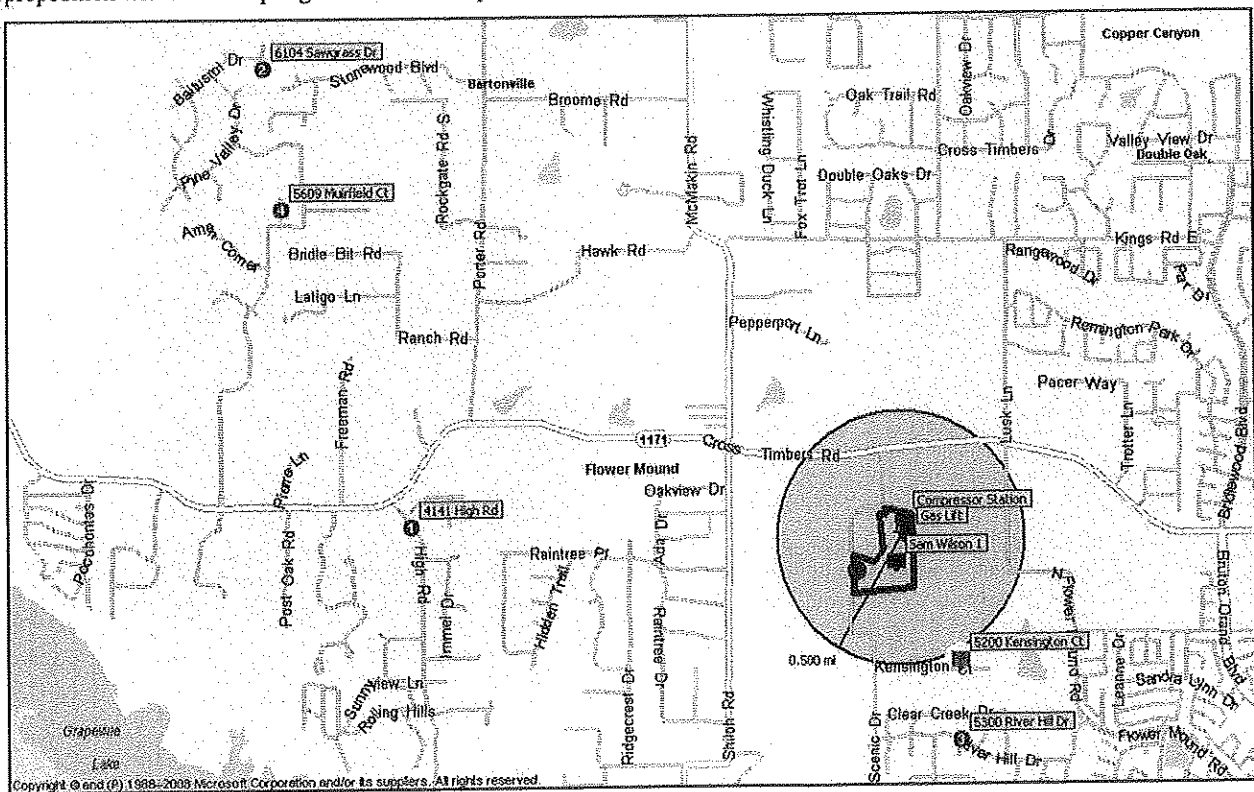
## SAM WILSON SITE 1

The Sam Wilson Site is a large collection facility located south of FM 1171, east of Scenic Drive in Flower Mound. The site has nine wells, a lift station, compressor station, and related facilities. It is a large site also known as the Wilson Compressor Station. No residential subdivisions are located in close proximity to the site. However, several upscale homes are located within a half-mile of the subject. Only one sale could be found near the site and it is more than one-half mile away. It is included in this study because it is the highest dollar amount of any property in this study at \$1,300,000. Additionally, primary access for the neighborhood is from Scenic Drive, directly past the large site. The sale is located on Kensington and is very nearly the top of the market in this area.

## Set 1

	5200 Kensington	4141 High Rd	6104 Sawgrass	5300 River Hill	5609 Muirfield
Distance in Feet	2,876	2,983	3,473	4,117	3,515
Sale Date	2/15/09	1/10/08	9/25/09	6/30/08	12/8/09
Gross Living Area	5,799	5,691	6,029	4,426	7,038
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$1,300,000	\$1,160,000	\$900,000	\$879,900	\$1,500,000
Sale Price/SF	\$224.18	\$203.83	\$149.28	\$198.80	\$213.13
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	300	\$0.00	\$0.00	-\$24.55	\$13.93
Adjusted Sale Price	\$224.18	\$203.83	\$149.28	\$174.25	\$227.06
Sale Price Comparison:					\$224.18
House Near Well					\$188.61
Houses off Well (Average)					\$35.57
Difference					18.86%
% Difference					

In this data set, no impact on the sale price could be found. With high-end homes, the valuation process is already a difficult proposition without attempting to isolate the impact of one factor on value.



**SAM WILSON SITE 2**

The Sam Wilson Site is located in the Town of Flower Mound while the nearest subdivision, Cross Timbers 6, is in the municipality of Double Oak. The site has one visible well head and four storage tanks. There is limited visibility of the site from Knob Hill Lane and most houses enjoy a thick tree buffer. Most houses in this neighborhood were constructed in the 1980's and 90's and sales prices range from \$230,000 to \$400,000. The well was drilled in October of 2005.

Set 1					
	160 Knob Hill	100 Woodland	760 Simmons	170 Woodland	230 Shady Hill
Distance in Feet	957	2,286	2,540	3,363	3,078
Sale Date	12/12/08	2/13/10	9/9/08	9/29/09	3/9/07
Gross Living Area	2,725	2,530	3,314	3,386	3,747
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$313,000	\$289,900	\$292,500	\$350,000	\$352,000
Sale Price/SF	\$114.86	\$114.58	\$88.26	\$103.37	\$93.94
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	300	\$0.00	\$7.32	\$8.04	\$11.24
Adjusted Sale Price	\$114.86	\$114.58	\$95.58	\$111.41	\$105.18
Sale Price Comparison:					
House Near Well					\$114.86
Houses off Well (Average)					\$106.69
Difference					\$8.17
% Difference					7.66%

Given trends in the area, as illustrated below, values appear to be stable and no time adjustments are warranted.



All sales were located within one-half mile of the wellhead. After adjusting for gross living area, no discernable difference was found between the sale closest to the wellhead and those over 2,200 feet from it.

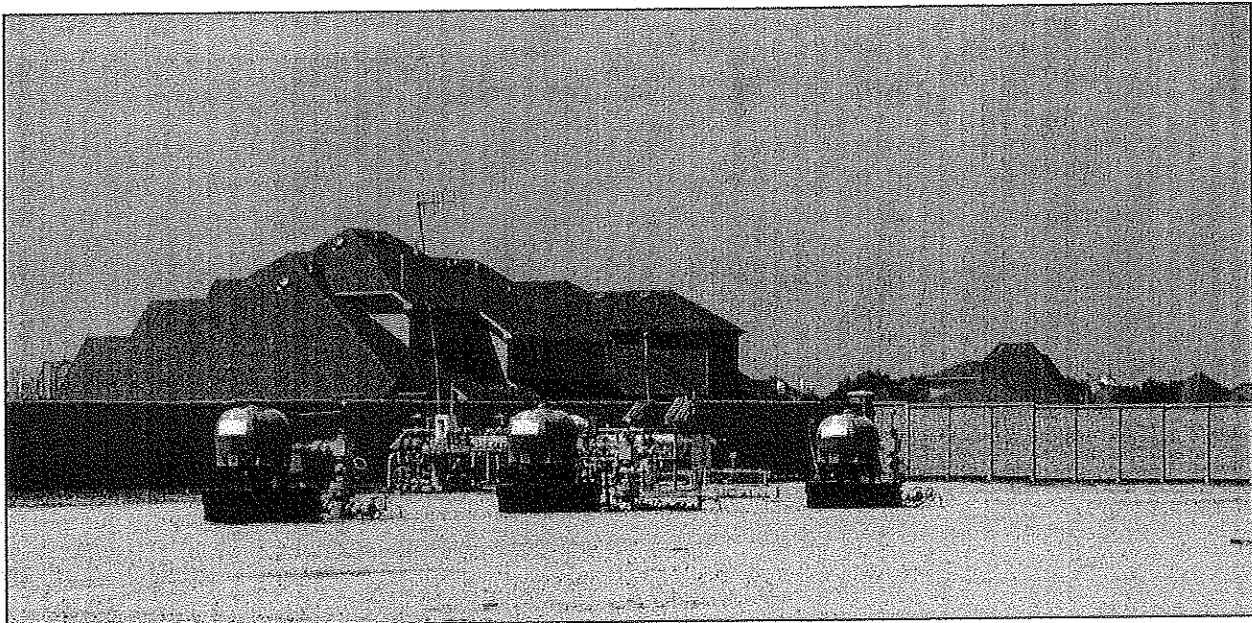
**TROPHY CLUB**

The Trophy Club site is located east of the intersection of Marshall Creek Road and Trophy Club Drive in Trophy Club, Texas. Construction of the subdivision around it is ongoing. The three wells on the site were drilled in 2005. According to records submitted to the Texas Railroad Commission, production is slowing. The well site at this location has a masonry wall surrounding it. Houses in this neighborhood are around 4,000 square feet and average about \$400,000. The sales center for Centex Homes reports that the well activity is slow and they do not discount houses adjacent to well sites. However, the following sale indicates otherwise.

**Set 1**

	2521 Strathfield Ln	2512 Mona Vale	2516 Ralston	2606 Bellshill L	2609 Strathfiel
Distance in Feet	246	1,032	774	1,144	826
Sale Date	12/18/09	1/14/10	11/25/09	10/23/09	9/24/09
Gross Living Area	4,043	3,879	4,014	4,343	4,391
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$340,000	\$389,000	\$425,000	\$410,550	\$375,008
Sale Price/SF	\$84.10	\$100.28	\$105.88	\$94.53	\$85.40
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	-	-\$1.59	-\$0.27	\$2.60	\$2.98
Adjusted Sale Price	\$84.10	\$98.69	\$105.61	\$97.13	\$88.38
<b>Sale Price Comparison:</b>					
House Near Well					\$84.10
Houses off Well (Average)					\$97.45
Difference					-\$13.36
% Difference					-13.71%

The sale at 2521 Strathfield Drive shares a property line with the well site. It indicates a discount of -13.71% as compared to houses off the well site. In whole dollars, the house adjacent to the well sold for \$340,000 while its paired sales sold for \$375,000 to \$425,000.



*View of the Trophy Club wellheads with house on Strathfield Lane in the background*



## WHYBURN UNIT

The Whyburn Site is located west of Copper Canyon Road, north of Golf Club Drive in Copper Canyon, Texas. The subdivision that neighbors it is the Crescent addition to the Lantana master-planned community. The community is not located on the golf course and is comprised of small lots. Houses in this neighborhood are priced in the \$250,000 range. They were constructed from about 2003 to 2005 and the well was drilled in July of 2007. The well site does not share a property line with the residences but it is very close. The sale below is the only house that is immediately adjacent to the well site.

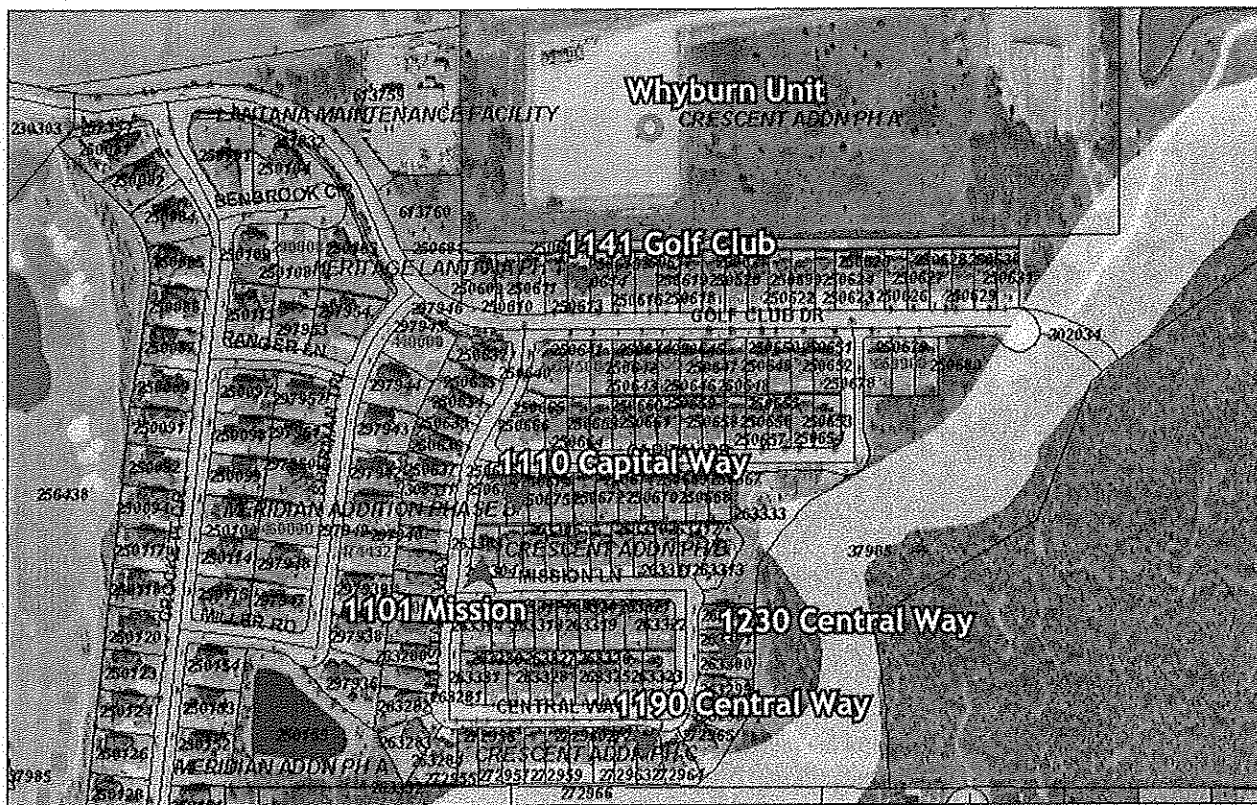
## Set 1

	1141 Golf Club Drive	1230 Central Way	1101 Mission Lane	1190 Central Way	1110 Capital Drive
Distance in Feet	406	1,199	991	1,383	857
Sale Date	4/8/10	9/10/08	6/29/09	10/15/09	2/6/08
Gross Living Area	2,903	2,822	2,856	2,873	3,377
Lot Size (AC)	Average	Average	Average	Average	Average
Well	Yes	No	No	No	No
Sale Price	\$248,000	\$264,500	\$249,900	\$260,000	\$278,000
Sale Price/SF	\$85.43	\$93.73	\$87.50	\$90.50	\$82.32
Sale Date Adjustment	0%	\$0.00	\$0.00	\$0.00	\$0.00
SF Adjustment	200	\$0.00	\$0.00	\$0.00	\$4.93
Adjusted Sale Price	\$85.43	\$93.73	\$87.50	\$90.50	\$87.26

## Sale Price Comparison:

House Near Well	\$85.43
Houses off Well (Average)	\$89.75
Difference	-\$4.32
% Difference	-4.81%

The sale at 1141 Golf Club indicates a discount of about -4.81% for its proximity to the well.





## COMPARABLE SALES SUMMARY

Sales of residential properties near well sites in the Flower Mound/Argyle area and surrounding communities were analyzed to determine if proximity to well sites influenced sale price. The natural gas market in the Flower Mound area is relatively young and few sales around well sites have occurred, especially around upscale homes. However, what little data is available in the area points to a marginally negative impact on residential property within a certain distance. The results of the paired sale data is shown below.

## Comparable Sales Results

Site	Set	Distance (ft)	Difference	Average Sale Price in Subdivision
Chapel Creek	1	980	-3.16%	\$115,000
Chapel Creek	2	1,100	0.72%	\$115,000
Chapel Creek	3	1,170	2.66%	\$115,000
Chapel Creek	4	1,150	-6.25%	\$115,000
Chapel Creek	5	910	-1.84%	\$115,000
Chapel Creek	6	980	3.18%	\$115,000
Chapel Creek	7	1,120	5.57%	\$115,000
Alliance-Saratoga	1	711	8.76%	\$220,000
Alliance-Saratoga	2	946	2.46%	\$220,000
Alliance-Saratoga	3	830	-9.55%	\$220,000
Alliance-Saratoga	4	756	1.71%	\$220,000
Whyburn Unit	1	406	-4.81%	\$255,000
Van Zandt Farms	1	680	3.89%	\$290,000
Van Zandt Farms	2	790	-0.80%	\$290,000
Van Zandt Farms	3	790	15.54%	\$290,000
Van Zandt Farms	4	710	-0.79%	\$290,000
Van Zandt Farms	5	710	5.11%	\$290,000
Van Zandt Farms	6	710	12.20%	\$290,000
Van Zandt Farms	7	710	12.04%	\$290,000
Van Zandt Farms	8	890	-4.27%	\$290,000
Van Zandt Farms	9	730	-13.31%	\$290,000
Van Zandt Farms	10	640	-2.77%	\$290,000
Sam Wilson 2	1	957	7.66%	\$300,000
Engler	1	225	6.22%	\$310,000
Engler	2	281	-3.95%	\$310,000
Engler	3	320	10.95%	\$310,000
Button	1	581	-13.45%	\$390,000
Trophy Club	1	246	-13.71%	\$390,000
Hills of Argyle	1	574	0.81%	\$425,000
Hills of Argyle	2	597	-6.57%	\$425,000
Hills of Argyle	3	624	-12.53%	\$425,000
Hills of Argyle	4	620	-3.46%	\$425,000
DCC	1	948	9.41%	\$505,000
Crow-Wright*	1	1,274	-8.62%	\$1,025,000
<b>Averages</b>		<b>739</b>	<b>0.23%</b>	<b>\$274,394</b>

\*The Crow-Wright sale was a foreclosure.

The comparable sale sets indicate a range in value difference from -13.71% to +15.54%, with an average of 0.23%. This wide range above and below zero could lead one to the conclusion that the imperfect nature of the real estate market provides insufficient conclusive evidence of influence as a result of well proximity. However, the data set ranges both in geographic region surveyed and distance from well sites.

Sites from various regions of Tarrant County and southern Denton were included to broaden the scope of research. While they are useful in aiding our understanding of how well sites impact value, they increase variance in the data. In order to

provide more specific insight into the Flower Mound market, we selected the comparable sets that are either in Flower Mound or share similar market characteristics. The following table shows well sites grouped by those considered comparable to the Flower Mound Market and those outside the market. The weighted average of the Average Value Difference is only 0.52%.

#### Comparable Sales Results by Similarity

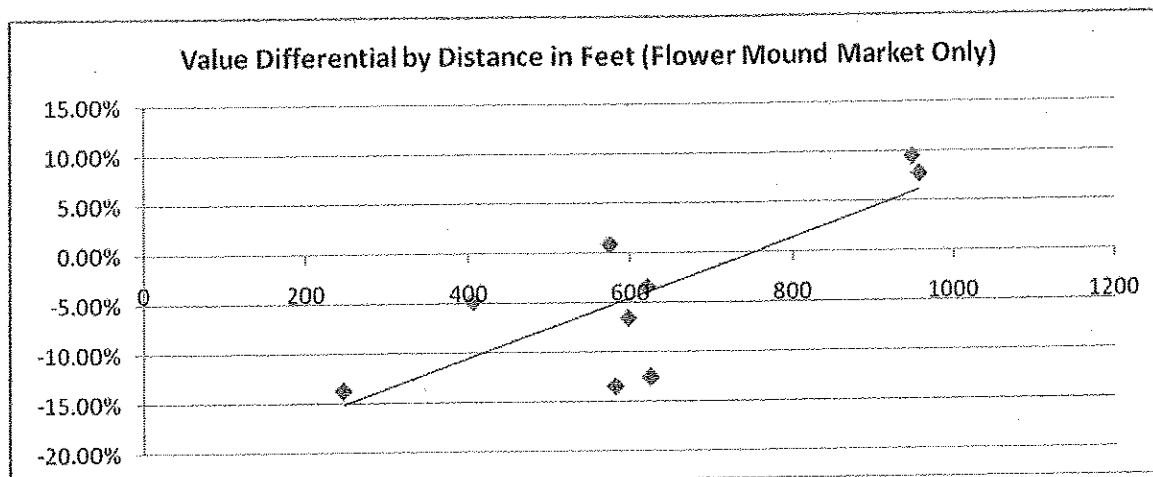
Flower Mound Comparable Sites		Number of Sets	Average Distance (ft)	Average Value Difference
Hills of Argyle	Argyle	4	604	-5.44%
Button	Copper Canyon	1	581	-13.45%
Crow-Wright	Flower Mound	1	1,274	-8.62%*
DCC	Argyle	1	948	9.41%
Sam Wilson 2	Flower Mound	1	957	7.66%
Trophy Club	Trophy Club	1	246	-13.71%
Whyburn Unit	Lantana	1	406	-4.81%
Sites in Other Areas		Number of Sets	Average Distance (ft)	Average Value Difference
Alliance-Saratoga	Fort Worth	4	811	0.85%
Little Chapel Creek	Fort Worth	7	1,059	0.13%
Van Zandt Farms	Fort Worth	10	736	2.68%
Engler	Keller	3	275	4.41%
Connell	Denton	1	295	18.98%

When sorted in the above manner, none of the sites that are considered to be outside the Flower Mound market exhibit any diminution in value resulting from well proximity. To further narrow our scope, the comparable sets from the Flower Mound-comparable sets that are displayed in the following table.

#### Flower Mound-Comparable Sales Results

Site	Set	Distance (ft)	Difference	Average Sale Price in Subdivision
Hills of Argyle	1	574	0.81%	\$425,000
	2	597	-6.57%	\$425,000
	3	624	-12.53%	\$425,000
	4	620	-3.46%	\$425,000
Button	1	581	-13.45%	\$390,000
DCC	1	948	9.41%	\$505,000
Sam Wilson 2	1	957	7.66%	\$300,000
Trophy Club	1	246	-13.71%	\$390,000
Whyburn Unit	1	406	-4.81%	\$255,000
Average		617	-4.07%	\$393,333

The above table is thought to most accurately represent the extent of the meaningful data regarding well proximity to residential property in the Flower Mound area. The average distance in the data set is 617, with an average difference of -4.07% and the average sale price is \$393,333. The Crow-Wright sale was removed because it was a foreclosure sale that did not reflect market conditions. When viewed in this manner, the maximum distance at which a negative impact was measured is 624 feet.

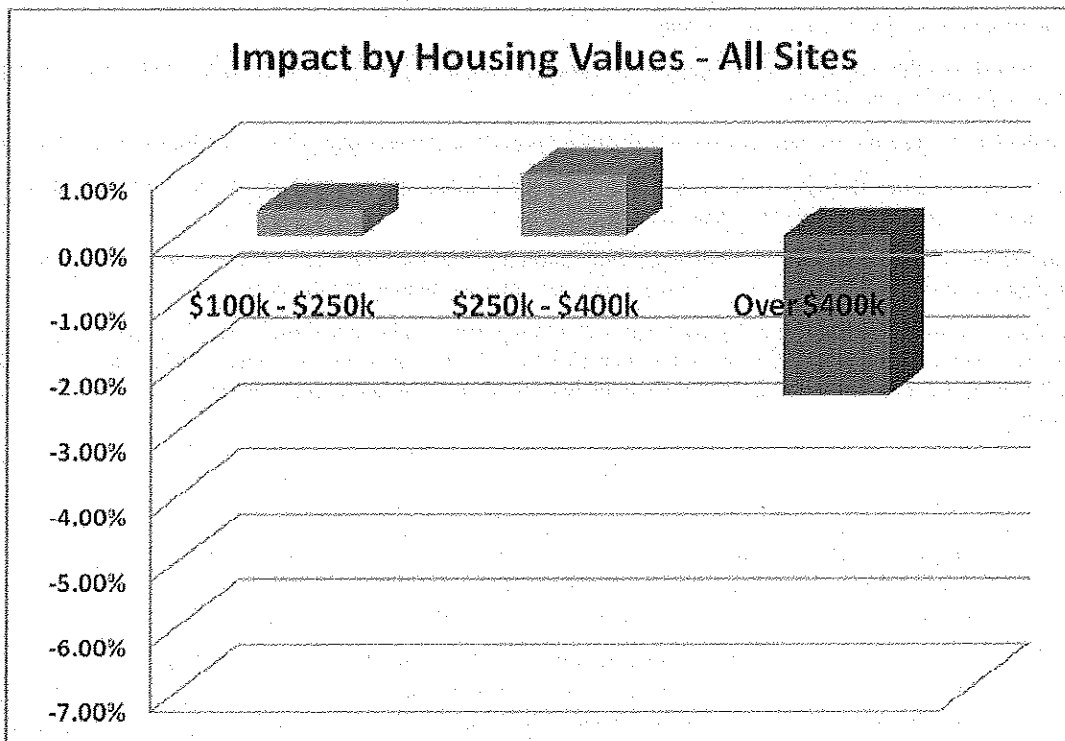


The above scatter plot charts the value difference recorded from each set, whether positive or negative. Somewhere between 600 feet and 1,000 feet the impact on proximity to a well dissipates. When applied to the data, the linear trend line crosses 0% impact at about 750 feet. The only house that exhibited a positive value difference for its proximity to the well site was the house located at 1700 Wickwood Lane in the Hills of Argyle and there is a house between it and the well site that is on the property where the well is located. Note that this chart applies only to houses in Flower Mound in close proximity to wells.

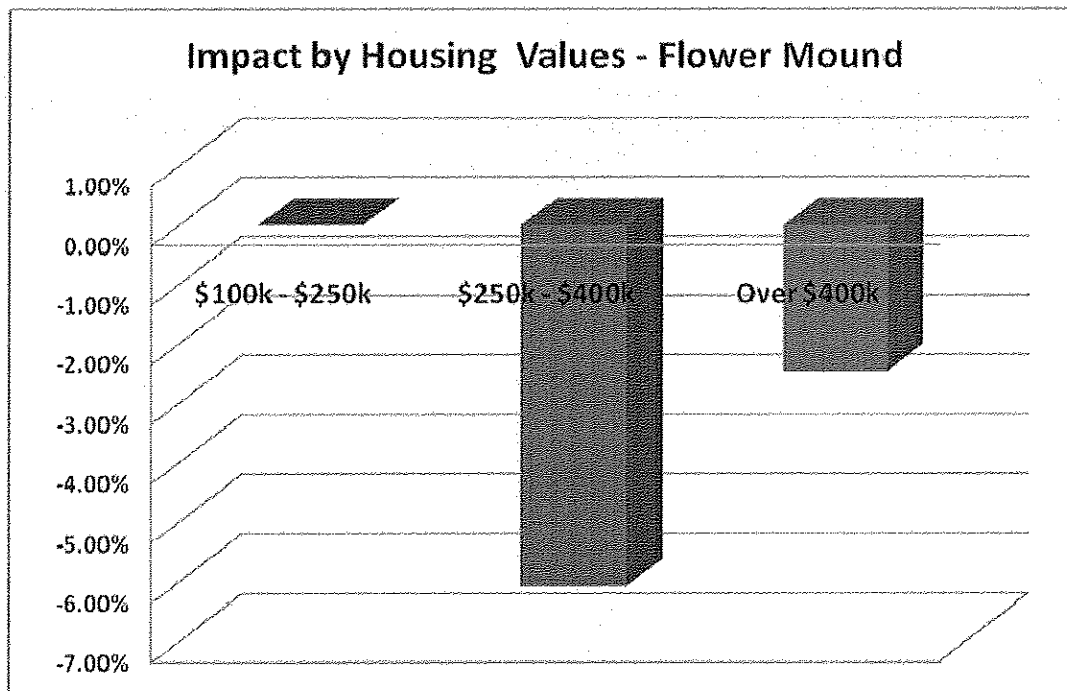
Without exception, the only sales that were observed to have a measureable impact on property value are the residences that are on the border of the neighborhood. That is to say, to be impacted the house must very nearly share a property line with the well site. In the case of the Button site, the impacted property is across the road from the well site. At the Whyburn Unit, there is about a twenty-foot gap between the well site pad and the back fence of the affected house.

Also of note, in the neighborhoods where a negative impact was observed, the lowest average property value from the subdivision was around \$255,000. That occurred in the Crescent addition of Lantana where sale prices in most other additions are greater than this. Lantana is a master-planned community with golf course amenities. All other subdivisions had average sale prices between \$300,000 and \$500,000. The maximum recorded sale price of any of the sites where a diminution in value was measured was \$750,000 (with the exception of the foreclosure at the Crow-Wright site).

There was a high degree of variance in the data sets, ranging from -13.71% to +15.54%. We compared the percentage impact measured from each set to the average sale price in each data set. For the entire project area researched, we found that generally speaking, houses in the lower price ranges did not exhibit as large an impact as houses at higher price points. This is illustrated in the chart below. It is important to note that this chart does not take into consideration the various distances from the wells for each category, and the average of each group is shown.



The same housing value categories were catalogued for the sites comparable to Flower Mound. Again, the percentage impact recorded is the average for the group and is irrespective of distance. For example, one sale in the highest value group was a considerable distance from the well and indicated a positive impact, thus lowering the average. The following chart illustrates those findings.



The following observations in the data can be made.

1. The data shows that impact is highly dependent upon the area in which the property is located, even so far as to vary from subdivision to subdivision.
2. The data illustrates that the farther from a well site a property is the less likely it is to be impacted by that proximity.
3. Lastly, we noted that if a visual buffer is present between a house and the well site, such as trees or other structures, the impact on property value is quickly diminished.

While the sales comparison method did not indicate a diminution in value for higher priced homes outside the Flower Mound area, this does not mean there is no impact. It simply means no impact was found in the data collected.

With any project, one would hope to find that most sales would indicate a notable and measureable impact on property value as a result of well site proximity. That is, does the data give you a "yes" or a "no" response. With such a high degree of variation in the data, we additionally utilized statistical analysis in an attempt to eliminate at least part of that variation. That analysis follows.

## STATISTICAL ANALYSIS

We performed statistical analysis on houses that have sold in proximity to well sites, compressor stations, and collection facilities where possible to see how the distance from these facilities impacts sale prices. The statistical tool of choice is the multiple linear regression package in Microsoft Excel. Linear regression uses the processing power of computers to place an incremental value on one or more elements of comparison. Elements of comparison (variables) are things like the square footage of a building, the size of a lot, or the number of bathrooms. The regression model derives a formula from the data the appraiser collects. In other words, it builds a model of reality based on the sample data we give it. It works very much like paired sale analysis that appraisers often utilize, except that it measures more than one element at a time. There are three major benefits of this type of analysis:

1. The model estimates differences in value that cannot be estimated through traditional methods. Paired sales analysis requires that two sales be virtually identical in every way except the element being studied in order to determine its affect on value. Regression allows for multiple properties to be used that differ in multiple ways, as long as the quantity of properties (sample size) is large enough.
2. The model removes subjectivity from the appraisal process. It reduces "cherry-picking" the sales that will give you the answer you are looking for. When multiple properties are all utilized from a neighborhood, there is less likelihood that properties give a result contrary to the predilection of the analyst.
3. The model can estimate differences between related elements that you would otherwise not be able to easily separate. For example, it can tell you how value changes based on the number of bathrooms separate from the square footage of the building.

For our purposes, the statistical model does not have to result in an accurate representation of the market in every aspect. It need only tell us whether or not the various elements of comparison are statistically significant or not. If so, the estimate of the contributory value of that element will then provide an indication of the degree to which that element affects value. The common elements of comparison we utilized in our study are listed below.

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### Regression Elements of Comparison (Explanatory Variables)

Well Distance	=	Distance in feet from the nearest wellhead to center of house rooftop
Time Trend	=	Time in months from earliest sale date (1=oldest date)
GLA	=	Square feet of gross living area
Lot Size	=	Size of lot in square feet
Age	=	Age of house as compared to the year 2010
Beds	=	Number of bedrooms
Baths	=	Sum of the number of full and half bathrooms
Garage	=	Number of garage spaces

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In addition to well distance, these are common adjustment categories which are routinely made in the appraisal process. Experimentation with other variables was also conducted but they either did not improve the accuracy of the model or there was an insufficient number of observations. The more elements of comparison that are utilized the larger the sample size must be, so if at all possible, neighborhoods that are fairly uniform in quality, size, and vintage were utilized to reduce margins of error.

The data analyzed in this analysis is gathered from the North Texas Multiple Listing Service (MLS) and is not guaranteed to be 100% correct. However, it is considered to be reasonably reliable. Sale date, square footage, year of construction, and the number of bedrooms, baths, and garage spaces are as reported from the MLS. Well distance is either measured manually by scaled aerial photography, or by geo-coding software. Lot size is either as reported by the MLS (when available) or appraisal district.

The focus of regression analysis is to find a linear relationship between all of the sales data that reduces variations in value (sum of least squares). The sample (sales utilized in the study) is analyzed to determine how likely it is to be different from the total population of all houses in the neighborhood. Two indicators of reliability are used to determine how likely the results of the sample are to be different from the total population. They are the "t-stat" and "p-value." For purposes of this study, rule-of-thumb benchmarks will be utilized to determine the significance of our findings. The following explanations of the t-stat and p-value are simplistic in nature to aid in the reader's understanding of the data presented.

### T-Stat

The t-stat is a measure of the statistical significance of a variable (such as distance from a well site) in explaining sale price. It takes into consideration the standard error of the model and the value of the variable determined by the model. In other words, it measures how far the standard error is from zero. The rule-of-thumb indicator of significance is any t-stat greater than +2 or less than -2 is acceptable. The higher the t-stat, the more confidence we can have in the predictive ability of the element (coefficient). Conversely, low t-stats mean less confidence that the element of comparison really does affect value.

### P-Value

The p-value is a probability. Therefore, it will range from 0 to 1 (0% to 100%). It indicates how well the sample represents that general population. In other words, how likely is it that the sample of homes sales we have analyzed *DOES NOT* represent the total population of houses in that neighborhood. A p-value of .05 means there is a 5% chance (if the average price per square foot is the same between the sample and the total population) that the true answer is different from what we observed. It does not mean that we are 95% likely to be correct. Our rule of thumb is less than or equal to 5% for p-values so a p-value greater than .05 means the answer the model came up with is not statistically significant.

### Statistical Significance

P-values and t-stats give an indication of how "significant" the findings of the model are relative to real life. Statistical significance differs from the common definition of significance in that it is relative to the sample size. If the quantity of observations (house sales) in a sample is relatively large, small differences will be categorized as statistically significant. Therefore, if a sample size is small, differences in value must be quite strong to be classified as statistically significant because a small portion of the total number of house sales has been observed. Put in another way, statistical significance is a number that indicates the probability that the results of our study occurred by chance.

The credibility of our study hinges upon the reliability of the data that has been gathered. However, real estate does not sell frequently and there can be vast differences in size, quality, location, et cetera, between houses. Therefore, this study does not utilize precise measures of statistical significance beyond widely accepted "rules of thumb," which are  $\pm 2$  for t-stats and less than or equal to .05 for p-values. This translates to a "margin of error" in our results of *about* 5% or a confidence level of *about* 95% that our results would be substantiated should the experiment be repeated.

Basically, if a variable (element of comparison) is *NOT* statistically significant, whatever the model indicates its value to be is not statistically different from zero. For example, if the presence of a storage shed is not statistically significant it is not likely to add or detract from the value of the home. So, even if the regression model assigns a value to a variable, (such as the presence of a storage shed) if it is not statistically significant, the value is statistically no different from zero.

The regression output tables that resulted from our research are contained in the addenda of this report. They show the elements of comparison that were utilized to isolate the various components that comprise property values, including distance from natural gas sites. Our particular interest in this study is the affect of proximity to well sites on value. The following table summarizes our findings.

### LINEAR REGRESSION RESULTS

Site	Location	Number of Sales	Well Distance		Significant?
			t-stat	p-value	
Alliance-Saratoga	Fort Worth	100	-1.700	0.092	No
Aune	Lantana	80	-1.379	0.172	No
Hills of Argyle*	Argyle	51	1.907	0.063	No
Bunn	Flower Mound	324	-0.729	0.466	No
Connell*	Denton	67	-2.493	0.016	Yes
Crow-Wright* (Tour-18)	Flower Mound	32	-0.673	0.508	No
Engler*	Keller	19	-0.845	0.418	No
Lawrence	Denton	29	3.895	0.001	Yes
Meece	Double Oak	24	-1.976	0.067	No
Lantana*	Lantana	148	-0.428	0.669	No

\* Aggregation of sales near multiple gas wells in the same subdivision

The previous table lists the t-stat and p-value of the distance from a wellhead in each sample. The final column indicates if distance from the wellhead is significant or not at the 95% confidence interval.

Only two out of the ten regression runs showed distance from the well statistically significant in its ability to impact sale price. The Connell site indicated that as distance increases value should fall, which is counterintuitive. The sign of the t-stat indicates how distance from a wellhead impacts value. A positive t-stat indicates that as distance from the wellhead increases, all else held equal, value increases (as expected). A negative t-stat signifies that as distance from the wellhead increases, value falls (not as expected). Only the Lawrence site suggests proximity to a wellhead effects value significantly. Eight of the ten sites suggest no significant value diminution due to well proximity.

The previous table does not report to what extent distance impacts value; only that it does or does not. The presence of a well and proximity to it was not found to influence values. This conclusion is based on the fact that only one of the ten sites resulted in statistical significance for well proximity.

What does this analysis tell us, if anything? Remember, "statistical significance" is not the same as significance in common vernacular. Statistical significance only tells us if there is enough consistency in the data to repeat the same results. The regression analysis does two things:

1. The statistical analysis confirms that the price-distance relationship methodology initially used in this study is indeed a valid technique. The price-distance relationship measures only two elements: price per square foot and distance from the wellhead. Many other variables are pertinent to the valuation of residential properties such as room count, quality of construction, lot size, age of the improvements, etc. Regression attempts to quantify other elements of comparison so as to isolate distance from the well. In the price-distance study we often found that proximity to the wellhead did not decrease values. When other variables were considered in the statistical analysis, we found similar results. Both methods lead us to conclude that proximity of houses to natural gas wells does not impact values significantly.
2. The comparable sale analysis (paired sales) technique showed that only houses that are close to the well site and which have no buffer between them and the site can be negatively impacted. Linear regression is most useful in situations where value gradients exist. For example, office rents are typically highest in downtown areas and gradually decline as distance from the city center increases. If a gradient affect on residential values existed as a result of proximity to natural gas sites, regression would show a steady and consistent increase in value with increase in distance. That was not the case in our samples. We observed a high degree of inconsistent value changes as distance from the well sites increased. That is to say, there was no steady increase in values as distance from well sites increased. If proximity to a natural gas well was an important issue, one would expect most data to indicated well proximity to be statistically significant in a negative direction.

The regression output tables that resulted from our research are contained in the addenda of this report. Note that not all sites analyzed via the two previous methodologies yielded suitable data for this statistical analysis.



## CONCLUSION

The body of evidence in this study is inconclusive regarding a definitive, across-the-board rule as to the impact of natural gas well sites on residential properties. There does not appear to be a significant degree of influence as a result of well proximity in the area studied. However, certain conclusions can be drawn for the Town of Flower Mound.

1. Many market participants believe natural gas wells negatively impact property values.
2. Properties in lower price ranges do not appear to have as strong an impact (if any) as upscale homes.
3. Homes on small lots such as "zero lot line" properties (e.g. Magnolia Addition of Lantana) are less likely to be impacted by proximity to natural gas wells as homes on large lots.
4. Marketing time for houses during drilling operations appears to be extended.
5. The only property subset to appear to be negatively impacted by proximity to natural gas sites are houses valued greater than \$250,000 in the Flower Mound area. The greatest impact measured occurred where a house was immediately adjacent to a well site.
  - a. Based on sales comparison data, the affect on houses in this category appears to be between about -3% and -14%. The range in property value decline found in price-distance relationships was about -2% to -7% in the Flower Mound area. Statistical regression analysis found no statistically significant diminution in value, however.
  - b. No definitive data pertaining to homes in subdivisions with average sale prices greater than \$505,000 could be found. Logic dictates that all homes over the \$250,000 threshold will be affected. Moreover, the effect may increase in more valuable neighborhoods.
6. Even in upscale communities, a property must be adjacent to a well site or on the outer edge of a neighborhood to be impacted. Any kind of buffer including vegetation, other houses, or sufficient distance will greatly reduce the impact on residential property values in the Flower Mound area. Residential properties in this study that were found to be negatively impacted were within 700 feet of the wellhead, measured from the center of the rooftop.
7. For houses not immediately adjacent to a well site and where there is no visual buffer between houses and well sites, the proximity effect disappears somewhere around 1,000 feet.
8. Data in at least one subdivision with resales of houses adjacent to well sites indicate that as time from the drill date increases, the affect on the property values appears to decrease. Sites with older wells exhibited the same result. This is likely due to the slow-down in activity on the site after the drilling rig is removed and screening is put in place. Additionally, as market participants become accustomed to the presence of natural gas facilities over time the affect on property values diminishes.
9. No discernable difference in property values could be found between low-impact sites with only wells on them and higher-impact sites that include compressor stations. However, most sites containing compressor stations utilized sound-baffling containment buildings and none were found in a proximity less than 1,000 feet to residences.

The Town of Flower Mound and surrounding areas were examined to determine if market evidence suggested any impact of natural gas facilities on residential property. This region has not experienced substantial natural gas exploration and as a result observations in Flower Mound were limited. The conclusions made in this report are based on the best data available at the time. As the market matures more data will become available in the future for analysis.

While our research included any natural gas facilities in the area, very few sites contain more than wellheads, metering devices, and tank batteries. The sites that contain gas lifts, compressors and other appurtenances in the region appeared to be too distant from neighboring houses to cause any measureable diminution in value.

**CERTIFICATION**

We certify that, to the best of our knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, conclusions, and recommendations
3. We have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. We have no bias with respect to the property that is the subject of this report or the parties involved with this assignment.
5. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
6. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
7. Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the *Code of Professional Ethics and Standards of Professional Appraisal Practice* of the Appraisal Institute, which includes the *Uniform Standards of Professional Appraisal Practice (USPAP)*.
8. Daniel Wright, MAI has not personally inspected the well sites or neighborhoods contained within this study for the purpose of this study. However, Mr. Wright is familiar with these areas and has frequented them regularly.
9. Significant real property appraisal assistance, consisting of data collection and property inspections, was provided by Tommy Pigg.
10. This appraisal is not based on a requested minimum valuation, a specific valuation or conclusion, or the approval of a loan.
11. We have not relied on unsupported conclusions relating to characteristics such as race, color, religion, national origin, gender, marital status, familial status, age, receipt of public assistance income, handicap, or an unsupported conclusion that homogeneity of such characteristics is necessary to maximize value.
12. It is our opinion that the subject does not include any enhancement in value as a result of any natural, cultural, recreational or scientific influences retrospective or prospective.
13. We have experience in appraising properties similar to the subject and are in compliance with the Competency Rule of *USPAP*.
14. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
15. As of the date of this report, Daniel Wright, MAI has completed the continuing education program of the Appraisal Institute.



Daniel Wright, MAI  
Certified General Real Estate Appraiser  
Certificate # TX-1329321-G



Dalton Vann  
General Real Estate Appraiser Trainee  
Certificate # TX133786-Trainee

	<b>PROFESSIONAL QUALIFICATIONS OF DANIEL PAUL WRIGHT, MAI</b>	
<b>EXPERIENCE:</b>	<p>Mr. Wright is a Director with the Fort Worth office of Integra Realty Resources DFW. Mr. Wright is also responsible for project and personnel management of the Eminent Domain and Litigation group in Dallas/Fort Worth. Mr. Wright has been active in real estate valuation and consulting since 1995. Mr. Wright joined Appraisal/Data Services in 1996, which became part of Integra Realty Resources, Inc. in 1999. Mr. Wright started at the bottom of the corporate ladder and worked his way up using integrity and hard work, and has been a top producer every year since 2002. In May 2006, Mr. Wright was named one of the 40 under 40 by the Fort Worth Business Press, which recognizes individuals that have contributed significantly to the business climate in the Dallas/Fort Worth market. In April 2007, Mr. Wright was named an "Outstanding Alumnus" by the University of North Texas, which is an annual award reserved for three UNT alumnus.</p> <p>Mr. Wright has been a guest speaker and lecturer on valuation issues throughout Texas and other states. Mr. Wright has been and is currently involved in board level capacity with several trade organizations. Mr. Wright is qualified in Texas State Courts as an expert on real estate valuation.</p> <p>Mr. Wright has performed valuation and consulting services on various properties including, but not limited to, shopping centers, apartment complexes, industrial facilities, raw and developed land, office towers and complexes, motels, hotels, and mixed-use developments. He has acted as a broker in real estate transactions, provided consultation and feasibility studies, and has worked extensively on complex eminent domain and litigation assignments of all types of properties. Mr. Wright has worked on numerous unique valuations, such as utility corridors, easement interests, partial and undivided interests, water towers, and billboards.</p>	
<b>LICENSED:</b>	Appraisal Institute – Designated MAI (Member of Appraisal Institute), Certificate No. 12257  Texas Real Estate Broker License No. 0446939	Texas State Certified General Real Estate Appraiser Certificate No. TX-1329321-G  Oklahoma Certified General Real Estate Appraiser Certificate No. 12861CGA
<b>PROFESSIONAL ACTIVITIES:</b>	<p>Board Member: International Right-of-Way Association (IRWA)          Chapter 36 Director 2006-2007          Chapter 36 President 2004-2005          Chapter 36 Vice President 2003-2004          Chapter 36 Secretary 2002-2003          Chapter 36 Education Chair 2000-2003          Region II Education Chair 2005-current          2013 Conference Bid Committee - current</p> <p>Board Member: Appraisal Institute – Central Texas Chapter          Vice President 2009          Chapter Secretary 2008          Chapter Treasure 2007          LDAC and Regional Representative 2008-2009</p> <p>Board Member: Greater Fort Worth Board of REALTORS®          Trustee: First United Methodist Church of Mansfield          Past Member: Tanglewood Homeowner's Association</p>	
<b>EDUCATION:</b>	Bachelor of Business Administration (with honors) University of North Texas, Denton, Texas 1995	Successfully completed numerous real estate related courses and seminars sponsored by the Appraisal Institute, accredited universities and others.
<b>EXCERPT OF PUBLICATIONS &amp; LECTURES:</b>	Convenience Stores Face Tough Markets – Fort Worth Star Telegram, February 17, 2003. Current Issues Impacting Billboards – Multiple Venues, 2004-2009. Appraisal Methods for Estimating Damages – Texas A&M University & other venues 2005 - 2009. Current Issues Impacting Billboards – Uniform Act Symposium, Anaheim, CA – November 2005 A Market View on Real Estate vs. Personal Property and Inventory – Denver, CO, - June 2006. City's Condo Craze Doesn't Concern Industry Observers – Fort Worth Business Press, September 4, 2006 Eminent Domain Appraising in an Adversarial Environment – CLE International – Austin, TX, January 2008 Planning and Zoning Implications on the Appraiser – Center for American & International Law – Plano, TX, May 2008 Tarrant County Forecast – Fort Worth, January 2009 Banks Paid Dearly to Build Out Local Branches – Fort Worth Business Press / Associated Press, March 23, 2009	

### PROFESSIONAL QUALIFICATIONS OF DALTON VANN

<b>EXPERIENCE:</b>	<p>Analyst for the Fort Worth office of Integra Realty Resources DFW, LLP, a full service real estate consulting and appraisal firm. Prior to joining Integra Realty Resources DFW, Mr. Vann worked as an analyst for C Circle X Appraisal Services in Bryan, Texas. With C Circle X, he assisted with HUD and Fannie Mae compliant appraisals, engaged in valuation for insurance underwriting and litigation work. Mr. Vann joined Integra in December of 2007 and has consulted on properties including industrial facilities, hotels/motels, subdivisions, office buildings, churches, ranches, estates, residential units, and raw land.</p> <p>Mr. Vann has several years of experience in the construction field. From 2000-2002, he served as a Utilitiesman with the United States Navy, where he specialized in water main repair, and gained additional experience in water and sewer treatment and received a universal certification in Heating Ventilation and Air Conditioning. He was deployed to Iraq in 2005 where he serviced water mains, installed water and sewer systems, and performed base maintenance. Prior to 2000, he performed commercial and residential electrical rough-in and finish work in the Brazos Valley, Texas area.</p>						
<b>PROFESSIONAL ACTIVITIES:</b>	<table border="0"> <tr> <td>Trainee License</td><td>Texas General Appraiser Trainee (TX-1337867-T)</td></tr> <tr> <td>Associate Member</td><td>Appraisal Institute, Central Texas Chapter</td></tr> <tr> <td>Member</td><td>Society of Texas A&amp;M Real Estate Professionals Fort Worth Chamber of Commerce International Right-of-Way Association, Chapter 36</td></tr> </table>	Trainee License	Texas General Appraiser Trainee (TX-1337867-T)	Associate Member	Appraisal Institute, Central Texas Chapter	Member	Society of Texas A&M Real Estate Professionals Fort Worth Chamber of Commerce International Right-of-Way Association, Chapter 36
Trainee License	Texas General Appraiser Trainee (TX-1337867-T)						
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Member	Society of Texas A&M Real Estate Professionals Fort Worth Chamber of Commerce International Right-of-Way Association, Chapter 36						
<b>EDUCATION:</b>	<p>Texas A&amp;M University <i>Master of Land Economics and Real Estate</i>, 2007 Coursework included real estate law, Valuation I &amp; II, urban economics, GIS, real estate finance. George Washington University Real Estate Case Study Competition.</p> <p>Texas A&amp;M University <i>Bachelor of Science, Agricultural Economics, Dual Foci</i>, 2005</p> <ul style="list-style-type: none"> <li>• Real Estate and Finance</li> <li>• Policy and Analysis</li> </ul> <p>Coursework included econometrics, finance, environmental economics, appraisal and valuation, rural entrepreneurship, statistics.</p> <p>Completed the following courses through the Appraisal Institute:</p> <p>Appraisal Procedures Uniform Standards of Professional Appraisal Practice Site Valuation and Cost Approach Feasibility, Market Value, Investment Timing: Option Value General Appraiser Income Approach Parts 1 &amp; 2 Market Analysis and Highest and Best Use USPAP Real Estate Finance, Statistics, and Valuation Modeling Business Practices and Ethics</p>						
<b>PUBLICATIONS</b>	<p>Are We Out of Recession? Economics and Real Estate in 2010 – Right of Way Magazine March/April 2010</p>						

## ASSUMPTIONS AND LIMITING CONDITIONS

In conducting this assignment, we have assumed, except as otherwise noted in our report, as follows:

1. All titles are marketable and free and clear of all liens, encumbrances, encroachments, easements and restrictions. All properties are under responsible ownership and competent management and is available for its highest and best use.
2. There are no existing judgments or pending or threatened litigation that could affect the value of the properties.
3. There are no hidden or undisclosed conditions of the land or of the improvements that would render the properties more or less valuable. Furthermore, there is no asbestos in the properties.
4. The properties are in compliance with all applicable building, environmental, zoning, and other federal, state and local laws, regulations and codes.
5. The information furnished by others is believed to be reliable, but no warranty is given for its accuracy.

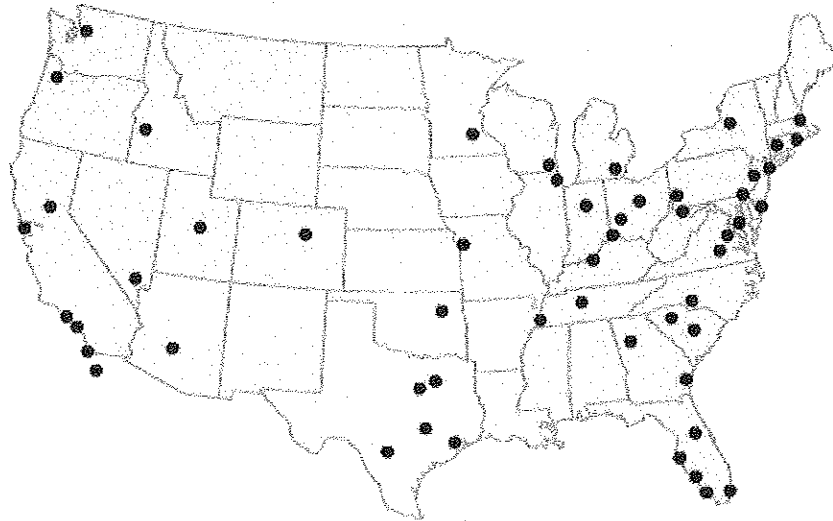
Our appraisal report is subject to the following limiting conditions, except as otherwise noted in our report:

6. An appraisal is inherently subjective and represents our opinion as to the value of the property appraised.
7. The conclusions stated in our appraisal apply only as of the effective date of the appraisal, and no representation is made as to the affect of subsequent events.
8. No changes in any federal, state or local laws, regulations or codes (including, without limitation, the Internal Revenue Code) are anticipated.
9. No environmental impact studies were either requested or made in conjunction with this appraisal, and we reserve the right to revise or rescind any of the value opinions based upon any subsequent environmental impact studies. If any environmental impact statement is required by law, the appraisal assumes that such statement will be favorable and will be approved by the appropriate regulatory bodies.
10. We are not required to give testimony or to be in attendance in court or any government or other hearing with reference to the property without written contractual arrangements having been made relative to such additional employment.
11. We have made no survey of the property and assume no responsibility in connection with such matters. Any sketch or survey of the property included in this report is for illustrative purposes only and should not be considered to be scaled accurately for size. The appraisal covers the property as described in this report, and the areas and dimensions set forth are assumed to be correct.
12. No opinion is expressed as to the value of subsurface oil, gas or mineral rights, if any, and we have assumed that the property is not subject to surface entry for the exploration or removal of such materials, unless otherwise noted in our appraisal.
13. We accept no responsibility for considerations requiring expertise in other fields. Such considerations include, but are not limited to, legal descriptions and other legal matters, geologic considerations, such as soils and seismic stability, and civil, mechanical, electrical, structural and other engineering and environmental matters.
14. The distribution of the total valuation in this report between land and improvements applies only under the reported highest and best use of the property. The allocations of value for land and improvements must not be used in conjunction with any other appraisal and are invalid if so used. This appraisal report shall be considered only in its entirety. No part of this appraisal report shall be utilized separately or out of context.
15. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraisers, or any reference to the Appraisal Institute) shall be disseminated through advertising media, public relations media, news media or any other means of communication (including without limitation prospectuses, private offering memoranda and other offering material provided to prospective investors) without prior written consent from Integra Realty Resources.
16. Information, estimates and opinions contained in this report, obtained from sources outside of the office of the undersigned, are assumed to be reliable and have not been independently verified.

17. Any income and expense estimates contained in this appraisal report are used only for the purpose of estimating value and do not constitute predictions of future operating results.
18. If the property is subject to one or more leases, any estimate of residual value contained in the appraisal may be particularly affected by significant changes in the condition of the economy, of the real estate industry, or of the appraised property at the time these leases expire or otherwise terminate.
19. No consideration has been given to personal property located on the premises or to the cost of moving or relocating such personal property; only the real property has been considered.
20. The current purchasing power of the dollar is the basis for the value stated in our appraisal; we have assumed that no extreme fluctuations in economic cycles will occur.
21. The value found herein is subject to these and to any other assumptions or conditions set forth in the body of this report but which may have been omitted from this list of Assumptions and Limiting Conditions.
22. The analyses contained in this report necessarily incorporate numerous estimates and assumptions regarding property performance, general and local business and economic conditions, the absence of material changes in the competitive environment and other matters. Some estimates or assumptions, however, inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, actual results achieved during the period covered by our analysis will vary from our estimates, and the variations may be material.
23. No studies have been provided to us indicating the presence or absence of hazardous materials on the site or in the improvements, and our valuation is predicated upon the property being free and clear of any environment hazards.
24. We have not been provided with any evidence or documentation as to the presence or location of any flood plain areas and/or wetlands. Wetlands generally include swamps, marshes, bogs, and similar areas. We are not qualified to detect such areas. The presence of flood plain areas and/or wetlands may affect the value of the property, and the value conclusion is predicated on the assumption that wetlands are non-existent or minimal.
25. If condemnation proceedings become necessary, this appraiser will testify to an updated opinion reflecting the value of the whole property, the part to be acquired, the value of the entire remainder prior to the acquisition and the value of the entire remainder after the acquisition, reflecting any change in the size or character of the land and/or changes in number and/or conditions of the improvements located thereon.

## INTEGRA REALTY RESOURCES, INC. CORPORATE PROFILE

Integra Realty Resources, Inc. is the largest property valuation and counseling firm in the United States with over 55 offices coast to coast. Integra's Managing Directors are well known experts in their respective communities, and continue to provide professional real estate services to many of the nation's largest and most prestigious financial institutions, developers, corporations, law firms, and government agencies concerned with the value, use, and feasibility of real estate. Integra's Managing Directors have, on average, 30 years of experience in each of their respective markets.



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## DEFINITIONS

These definitions have been extracted, solely or in combination, from definitions and descriptions printed in:

- *Uniform Standards of Professional Appraisal Practice*, 2010-2011 Edition (*USPAP*)
- *The Dictionary of Real Estate Appraisal*, Fifth Edition, Appraisal Institute, Chicago, Illinois, 2008 (*Dictionary*)
- *The Appraisal of Real Estate*, Thirteenth Edition, Appraisal Institute, Chicago, Illinois, 2008

### Appraisal

The act or process of developing an opinion of value; an opinion of value. (*USPAP*)

### Easement Interest

An interest in real property that conveys use, but not ownership, of a portion of an owner's property. (*Dictionary*)

### Effective Date

The date at which the analyses, opinions, and advice in an appraisal, review, or consulting service apply. (*Dictionary*)

### Fee Simple Estate

Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat. (*Dictionary*)

### Highest and Best Use

The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum profitability. (*Dictionary*)

### Leased Fee Interest

An ownership interest held by a landlord with the rights of use and occupancy conveyed by lease to others. The rights of the lessor (the leased fee owner) and the lessee are specified by contract terms contained within the lease. (*Dictionary*)

### Leasehold Interest

The interest held by the lessee (the tenant or renter) through a lease transferring the rights of use and occupancy for a stated term under certain conditions. (*Dictionary*)

### Market Value

Market Value is defined by *City of Austin v. Cannizzo*, 267 S.W. 2d 808 (Tex 1954) as being:

"The price the property would bring when offered for sale by one who desires to sell, but is not obliged to sell, and is bought by one who desires to buy, but is under no necessity of buying, taking into consideration all of the uses to which it is reasonably adaptable and for which it either is, or in all reasonable probability, will become available within the reasonable future."



## **ADDENDUM A**

### **REGRESSION OUTPUT**

## SUMMARY OUTPUT Alliance-Saratoga

Regression Statistics	
Multiple R	0.889
R Square	0.791
Adjusted R Square	0.773
Standard Error	15601.800
Observations	100.000

## ANOVA

	df	SS	MS	F	Significance F
Regression	8.000	83876922487.839	10484615310.980	43.073	0.000
Residual	91.000	22150870820.671	243416162.865		
Total	99.000	106027793308.510			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	97138.400	21983.666	4.419	0.000	53470.549	140806.251	53470.549	140806.251
Well Distance	-4.251	2.500	-1.700	0.092	-9.218	0.715	-9.218	0.715
Time Trend	-20.175	107.981	-0.187	0.852	-234.666	194.316	-234.666	194.316
GLA	35.807	4.982	7.187	0.000	25.911	45.704	25.911	45.704
Lot Size (SF)	3.582	0.821	4.361	0.000	1.950	5.213	1.950	5.213
Age	-5818.492	1383.823	-4.205	0.000	-8567.286	-3069.699	-8567.286	-3069.699
Beds	6510.292	3940.591	1.652	0.102	-1317.207	14337.791	-1317.207	14337.791
Baths	875.354	4017.082	0.218	0.828	-7104.085	8854.794	-7104.085	8854.794
Garage	1217.299	7584.032	0.161	0.873	-13847.448	16282.046	-13847.448	16282.046

## SUMMARY OUTPUT Aune

Regression Statistics	
Multiple R	0.846
R Square	0.715
Adjusted R Square	0.683
Standard Error	30792.798
Observations	80

## ANOVA

	df	SS	MS	F	Significance F
Regression	8	1.68803E+11	21100350057	22.2531	1.49173E-16
Residual	71	67321944604	948196402.9		
Total	79	2.36125E+11			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	107284.899	38763.353	2.768	0.007	29992.969	184576.829	29992.969	184576.829
Well Distance	-6.546	4.747	-1.379	0.172	-16.011	2.919	-16.011	2.919
Time Trend	169.918	1466.236	0.116	0.908	-2753.673	3093.510	-2753.673	3093.510
GLA	53.813	11.331	4.749	0.000	31.219	76.407	31.219	76.407
Lot Size	-0.006	0.033	-0.169	0.866	-0.071	0.060	-0.071	0.060
Age	-1477.933	1944.243	-0.760	0.450	-5354.644	2398.777	-5354.644	2398.777
Beds	-6033.561	9785.081	-0.617	0.539	-25544.458	13477.335	-25544.458	13477.335
Baths	8875.035	10794.665	0.822	0.414	-12648.915	30398.984	-12648.915	30398.984
GarageCap	13168.805	9681.527	1.360	0.178	-6135.611	32473.221	-6135.611	32473.221

## SUMMARY OUTPUT Hills of Argyle

Regression Statistics	
Multiple R	0.875
R Square	0.766
Adjusted R Square	0.722
Standard Error	41873.216
Observations	51

## ANOVA

	df	SS	MS	F	Significance F
Regression	8	2.41313E+11	30164127800	17.2036	5.29348E-11
Residual	42	73641380966	1753366213		
Total	50	3.14954E+11			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	49563.332	81302.577	0.610	0.545	-114511.910	213638.573	-114511.910	213638.573
Well Distance	28.047	14.706	1.907	0.063	-1.632	57.726	-1.632	57.726
Time Trend	-6.061	299.099	-0.020	0.984	-609.667	597.545	-609.667	597.545
GLA	98.613	14.200	6.945	0.000	69.957	127.269	69.957	127.269
Lot Size	1.206	0.594	2.029	0.049	0.007	2.405	0.007	2.405
Age	-53.982	2450.480	-0.022	0.983	-4999.250	4891.286	-4999.250	4891.286
Beds	-21026.166	13826.463	-1.521	0.136	-48929.097	6876.766	-48929.097	6876.766
Baths	14979.625	14057.055	1.066	0.293	-13388.660	43347.910	-13388.660	43347.910
GarageCap	-18235.109	18747.371	-0.973	0.336	-56068.835	19598.616	-56068.835	19598.616

## SUMMARY OUTPUT Bunn

Regression Statistics	
Multiple R	0.888
R Square	0.788
Adjusted R Square	0.783
Standard Error	21477.640
Observations	324

## ANOVA

	df	SS	MS	F	Significance F
Regression	8	5.41454E+11	67681789760	146.723	1.9295E-101
Residual	315	1.45306E+11	461288999.6		
Total	323	6.8676E+11			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	37566.779	15521.991	2.420	0.016	7026.896	68106.661	7026.896	68106.661
Well Distance	-0.980	1.344	-0.729	0.466	-3.624	1.664	-3.624	1.664
Time Trend	409.897	64.409	6.364	0.000	283.172	536.623	283.172	536.623
GLA	78.534	4.684	16.768	0.000	69.319	87.749	69.319	87.749
Lot Size	2.311	0.723	3.195	0.002	0.888	3.735	0.888	3.735
Age	-3622.872	836.227	-4.332	0.000	-5268.169	-1977.576	-5268.169	-1977.576
Beds	-248.390	2888.040	-0.086	0.932	-5930.677	5433.897	-5930.677	5433.897
Baths	1804.884	3089.984	0.584	0.560	-4274.732	7884.501	-4274.732	7884.501
Garage	12234.481	3392.091	3.607	0.000	5560.462	18908.500	5560.462	18908.500

## SUMMARY OUTPUT Connell

Regression Statistics	
Multiple R	0.881
R Square	0.777
Adjusted R Square	0.746
Standard Error	10898.102
Observations	67

## ANOVA

	df	SS	MS	F	Significance F
Regression	8	23975178552	2996897319	25.2331	3.09526E-16
Residual	58	6888580666	118768632.2		
Total	66	30863759218			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	112155.082	22335.259	5.021	0.000	67446.205	156863.960	67446.205	156863.960
Well Distance	-9.208	3.694	-2.493	0.016	-16.602	-1.814	-16.602	-1.814
Time Trend	31.807	73.776	0.431	0.668	-115.872	179.485	-115.872	179.485
GLA	34.289	5.923	5.789	0.000	22.433	46.144	22.433	46.144
Lot Size	-1.145	1.279	-0.895	0.374	-3.705	1.415	-3.705	1.415
Age	-3642.880	1027.005	-3.547	0.001	-5698.654	-1587.107	-5698.654	-1587.107
Beds	2794.066	3417.420	0.818	0.417	-4046.643	9634.774	-4046.643	9634.774
Baths	5352.950	6361.559	0.841	0.404	-7381.093	18086.993	-7381.093	18086.993
Garage	1326.525	3637.808	0.365	0.717	-5955.339	8608.390	-5955.339	8608.390

## SUMMARY OUTPUT Crow-Wright (Tour 18)

Regression Statistics	
Multiple R	0.839
R Square	0.703
Adjusted R Square	0.600
Standard Error	224130.302
Observations	32

## ANOVA

	df	SS	MS	F	Significance F
Regression	8	2.73792E+12	3.4224E+11	6.81287	0.000134566
Residual	23	1.15539E+12	50234392343		
Total	31	3.89331E+12			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-427690.117	724382.660	-0.590	0.561	-1926189.810	1070809.576	-1926189.810	1070809.576
Well Distance	-26.973	40.101	-0.673	0.508	-109.927	55.982	-109.927	55.982
Time Trend	-1419.892	3282.926	-0.433	0.669	-8211.141	5371.357	-8211.141	5371.357
GLA	196.133	53.273	3.682	0.001	85.930	306.336	85.930	306.336
Lot Size	3.844	6.214	0.619	0.542	-9.010	16.698	-9.010	16.698
Age	-3328.137	10725.358	-0.310	0.759	-25515.230	18858.957	-25515.230	18858.957
Beds	-115468.916	177009.508	-0.652	0.521	-481640.980	250703.149	-481640.980	250703.149
Baths	185141.871	152113.889	1.217	0.236	-129529.683	499813.424	-129529.683	499813.424
Garage	-68108.166	100748.008	-0.676	0.506	-276521.299	140304.967	-276521.299	140304.967

## SUMMARY OUTPUT Engler

Regression Statistics	
Multiple R	0.966
R Square	0.933
Adjusted R Square	0.880
Standard Error	24549.091
Observations	19

## ANOVA

	df	SS	MS	F	Significance F
Regression	8	84019381465	10502422683	17.4268	6.33258E-05
Residual	10	6026578584	602657858.4		
Total	18	90045960050			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	95788.8595	98806.8066	0.9695	0.3552	-124366.4242	315944.1431	-124366.4242	315944.1431
Well Distance	-24.8056	29.3489	-0.8452	0.4178	-90.1991	40.5878	-90.1991	40.5878
Time Trend	-1141.4897	1156.1966	-0.9873	0.3468	-3717.6562	1434.6767	-3717.6562	1434.6767
GLA	46.2057	17.7643	2.6010	0.0264	6.6243	85.7871	6.6243	85.7871
Lot Size	5.6764	7.8325	0.7247	0.4852	-11.7756	23.1283	-11.7756	23.1283
Age	-31945.5898	15750.3919	-2.0282	0.0700	-67039.6498	3148.4702	-67039.6498	3148.4702
Beds	-6485.2533	16395.5107	-0.3956	0.7007	-43016.7276	30046.2211	-43016.7276	30046.2211
Baths	19282.6033	21277.6852	0.9062	0.3861	-28127.0336	66692.2403	-28127.0336	66692.2403
Garage	19574.0976	18200.8281	1.0755	0.3074	-20979.8745	60128.0698	-20979.8745	60128.0698

## SUMMARY OUTPUT Lawrence

Regression Statistics	
Multiple R	0.896
R Square	0.803
Adjusted R Square	0.725
Standard Error	9683.179
Observations	29

## ANOVA

	df	SS	MS	F	Significance F
Regression	8	7661912863	957739107.9	10.2144	1.37013E-05
Residual	20	1875279212	93763960.6		
Total	28	9537192075			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	35108.850	28872.005	1.216	0.238	-25117.097	95334.798	-25117.097	95334.798
Well Distance	27.436	7.044	3.895	0.001	12.742	42.130	12.742	42.130
Time Trend	-9.175	100.394	-0.091	0.928	-218.593	200.243	-218.593	200.243
GLA	27.113	14.252	1.902	0.072	-2.616	56.842	-2.616	56.842
Lot Size	-4.840	1.934	-2.503	0.021	-8.873	-0.807	-8.873	-0.807
Age	11465.811	4457.735	2.572	0.018	2167.139	20764.484	2167.139	20764.484
Beds	-11404.926	6122.890	-1.863	0.077	-24177.049	1367.198	-24177.049	1367.198
Baths	19843.864	9718.448	2.042	0.055	-428.465	40116.192	-428.465	40116.192
Garage	7294.503	5472.731	1.333	0.198	-4121.415	18710.420	-4121.415	18710.420

## SUMMARY OUTPUT Meece

Regression Statistics	
Multiple R	0.949
R Square	0.900
Adjusted R Square	0.846
Standard Error	27184.265
Observations	24

## ANOVA

	df	SS	MS	F	Significance F
Regression	8	99516203913	12439525489	16.8333	3.44332E-06
Residual	15	11084764285	738984285.6		
Total	23	1.10601E+11			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	209036.044	57767.165	3.619	0.003	85908.246	332163.842	85908.246	332163.842
Well Distance	-9.534	4.826	-1.976	0.067	-19.820	0.752	-19.820	0.752
Time Trend	-1525.222	656.483	-2.323	0.035	-2924.482	-125.962	-2924.482	-125.962
GLA	120.756	25.755	4.689	0.000	65.860	175.653	65.860	175.653
Lot Size	-1.141	0.973	-1.173	0.259	-3.215	0.932	-3.215	0.932
Age	-3334.014	652.858	-5.107	0.000	-4725.547	-1942.480	-4725.547	-1942.480
Beds	15434.275	23014.916	0.671	0.513	-33620.856	64489.406	-33620.856	64489.406
Baths	-41923.889	26538.645	-1.580	0.135	-98489.672	14641.894	-98489.672	14641.894
Garage	6344.443	7981.457	0.795	0.439	-10667.629	23356.516	-10667.629	23356.516

## SUMMARY OUTPUT Lantana

Regression Statistics	
Multiple R	0.919
R Square	0.844
Adjusted R Square	0.835
Standard Error	41709.222
Observations	149

## ANOVA

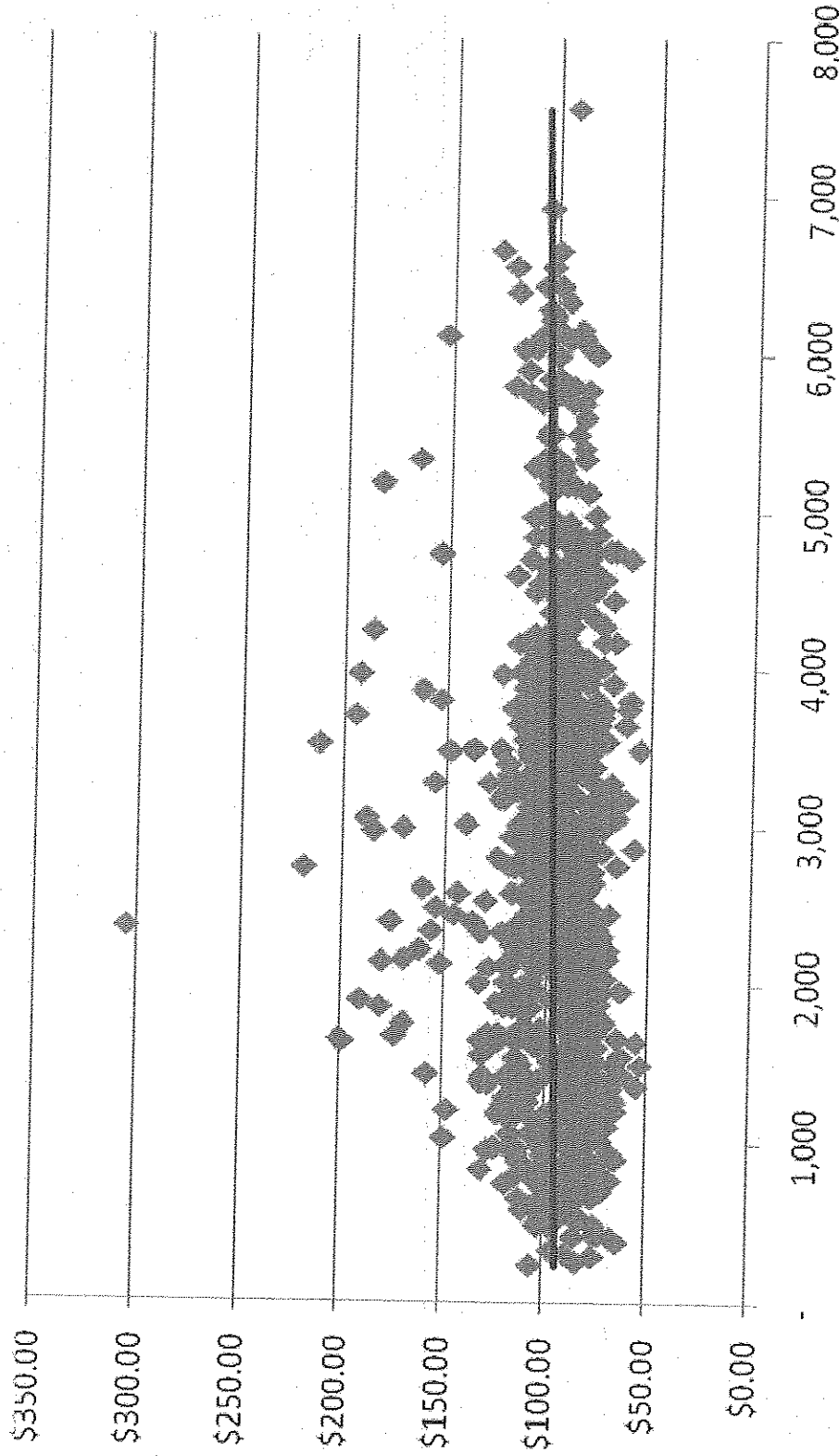
	df	SS	MS	F	Significance F
Regression	8	1.31797E+12	1.64746E+11	94.7004	1.22828E-52
Residual	140	2.43552E+11	1739659214		
Total	148	1.56152E+12			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-78214.377	29437.697	-2.657	0.009	-136414.285	-20014.470	-136414.285	-20014.470
Well Distance	-1.356	3.167	-0.428	0.669	-7.617	4.904	-7.617	4.904
Time Trend	-718.609	359.490	-1.999	0.048	-1429.339	-7.879	-1429.339	-7.879
GLA	26.991	8.391	3.217	0.002	10.402	43.581	10.402	43.581
Lot Size	17.234	2.012	8.568	0.000	13.258	21.211	13.258	21.211
Age	-5834.962	1640.464	-3.557	0.001	-9078.248	-2591.676	-9078.248	-2591.676
Beds	15832.070	9032.769	1.753	0.082	-2026.199	33690.339	-2026.199	33690.339
Baths	33538.259	7760.690	4.322	0.000	18194.958	48881.559	18194.958	48881.559
Garage	14691.357	10103.700	1.454	0.148	-5284.201	34666.915	-5284.201	34666.915

## **ADDENDUM B**

### **AGGREGATES OF ALL OBSERVATIONS**

## Price per Square Foot by Distance from Wellhead



This table represents 948 sales that were observed near the drill sites utilized in this report. When the price per square foot of each sale is plotted with the distance of the house from the wellhead, we find the linear trend line indicates a slightly positive value increase as price increases with distance. At 1,000 feet, the above trend line indicates a positive 1.71% change in value. In the vast majority of observations the well is not visible from the house.



FLOWER MOUND DRILL SITE STUDY

AGGREGATES OF ALL OBSERVATIONS

SUMMARY  
OUTPUT

Regression Statistics	
Multiple R	0.904
R Square	0.818
Adjusted R Square	0.816
Standard Error	75022.277
Observations	935

ANOVA

	df	SS	MS	F	Significance F
Regression	8	2.33565E+13	2.91956E+12	518.7253432	0
Residual	926	5.21184E+12	5628342017		
Total	934	2.85684E+13			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-127817.052	20711.990	-6.171	0.000	-168464.934	-87169.170	168464.934	-87169.170
Well Distance	12.567	1.991	6.312	0.000	8.659	16.474	8.659	16.474
Time Trend	-131.012	129.259	-1.014	0.311	-384.687	122.663	-384.687	122.663
GLA	115.923	6.033	19.216	0.000	104.084	127.763	104.084	127.763
Lot Size (SF)	3.632	0.218	16.683	0.000	3.205	4.060	3.205	4.060
Age	-4257.475	617.694	-6.893	0.000	-5469.717	-3045.233	-5469.717	-3045.233
Beds	-15218.921	5684.910	-2.677	0.008	-26375.723	-4062.119	-26375.723	-4062.119
Baths	15813.222	5887.247	2.686	0.007	4259.328	27367.116	4259.328	27367.116
GarageCap	16524.486	5824.382	2.837	0.005	5093.968	27955.004	5093.968	27955.004

Out of the observations utilized in the study, 935 had sufficient data available to perform linear regression analysis. With this quantity of observations, all variables were statistically significant with the exception of time. This is thought to be because the sample sales occurred as far back as 2004 so the trend in price appreciation would have been positive for the earliest sales and then negative after the mortgage crisis of 2007 began. Observed as an aggregate of all sales across multiple well sites in Tarrant and Denton Counties, the coefficient of Well Distance is 12.567. In general terms, this means that as distance from the well increases by one foot, the value of a property increases by \$12.57. At 1,000 feet, this is equivalent to \$12,567, after which distance we do not believe there to be any impact from well proximity. With an average sale price in the sample of \$314,667, this is equivalent to a 3.99% loss in value. We believe these results are applicable in general terms but the qualifications of price points over \$250,000 and homes adjacent to the well site still apply.

193

## Regular Committees

194

**CIVIL SERVICE**  
**(Bonnie E. Russell, Chairperson)**

00046

Appt Special Assistant to Comptroller(Exempt)(Small)(Compt)  
Ccp# 15, 11/3

Mrs. Russell moved

That the above item be the same and hereby is Received and Filed

ADOPT

Bonnie E. Russell

Recommended by the Committee on Civil Service

00047

Appt Assistant Engineer (Perm)(5<sup>th</sup> Step)(Duk)(PW)  
(ccp# 22, 11/3)

Mrs Russell moved

That Communication of 22 of November 3, 2010, be received and  
Filed and that the Permanent appointment of Thomas Duk, 56  
Shenandoah Rd, Buffalo, NY 14216, at the Maximum Salary of  
\$52,147.00 is hereby approved.

PASSED

AYES - 9 NOES - 0

Recommended by the Committee on Civil Service

Bonnie E. Russell

2

197

\* AYE \* NO \*

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FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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Maj - 5  
2/3 - 6  
3/4 - 7

Appoint Dispatcher(Perm)(4<sup>th</sup> Step)(Gugino)(PW)  
(ccp# 23, 11/3)

Mrs Russell moved

That Communication of 23 of November 3, 2010, be received and  
Filed and that the Permanent appointment of Thomas Duk, 56  
Shenandoah Rd, Buffalo, NY 14216, at the 4<sup>th</sup> Step of \$39,101.00 is  
hereby approved.

PASSED

AYES - 9 NOES - 0

Recommended by the Committee on Civil Service

Bonnie E Russell

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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Maj - 5  
2/3 - 6  
3/4 - 7



Notices of Appointments-Temp/Prov/Perm  
Ccp# 44, 11/3

200

Mrs. Russell moved

That the above item be the same and hereby is Received and Filed

ADOPT

Bonnie E Russell

Recommended by the Committee on Civil Service

00050

Appt Deputy Corp Counsel(Exempt)(Savage III) (CC)  
Ccp# 38, 7/20

201

Mrs. Russell moved

That the above item be the same and hereby is Received and Filed

ADOPT

Bonnie E Russell

Recommended by the Committee on Civil Service

5

202

## **FINANCE**

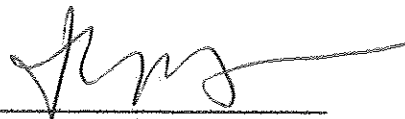
**(Michael P. Kearns, Chairman)**

Permission to Hire Consultant 2011 Department of Homeland Security Data Call  
(Item No. 21, C.C.P., Oct. 19, 2010)

That the Commissioner of Public Works, Parks & Streets be, and he hereby is authorized to retain a consultant to conduct research for the 2011 Department of Homeland Security Data Call. Funds for this project are available in the HSGP for year (6).

Passed.

Recommended by the Committee on Finance



Chairman

204

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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Maj - 5  
2/3 - 6  
3/4 - 7

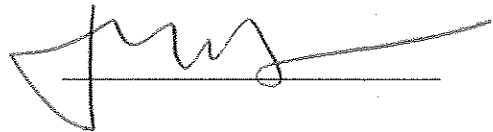
D. Jackson-Interest in Shared Asset for Justice Fund  
Ccp# 45, 10/5

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

Recommended by the Committee on Finance

A handwritten signature in black ink, appearing to be "J. Kearns", written over a horizontal line.

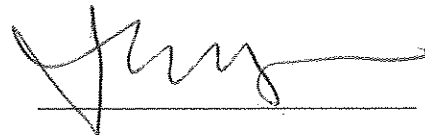
200

Promoting Transparency in Capital Budget Process by Holding Citizens Planning Council  
Meetings in CC Chambers (Exc Resolves)  
Ccp# 106, 7/20

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be "J. Kearns", written over a horizontal line.

Recommended by the Committee on Finance

8

00054

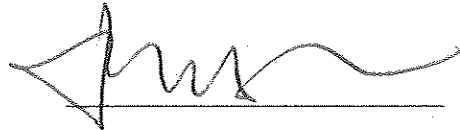
207

M. Kearns-Article-Grants & Financial Incentives Available to Upgrade Solid Waste Fleet  
(#52, 6/22)  
Ccp# 69,7/6

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be 'JMS', written over a horizontal line.

Recommended by the Committee on Finance

9



Audit Report Substance Services Financial Procedures (Compt)  
Ccp# 14,5/25

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be 'J. H. ...', written over a horizontal line.

Recommended by the Committee on Finance

00056

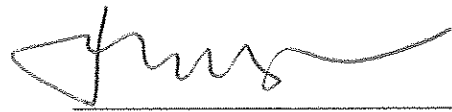
209

Additional Info on Fed Financial Assistance(Compt)  
Ccp# 12,5/25

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be "J. R. ...", written over a horizontal line.

Recommended by the Committee on Finance

11

00057

210

BSA Operating Fund Budget for FY 2010-2011(BSA)  
Ccp# 45, 4/27

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be "J. Kearns", written over a horizontal line.

Recommended by the Committee on Finance

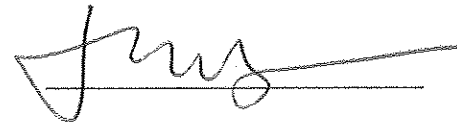
12

D. Franczyk-State Audit of the City's Elevator Inspections  
Ccp# 27, 3/2

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be 'J. Kearns', written over a horizontal line.

Recommended by the Committee on Finance

00059

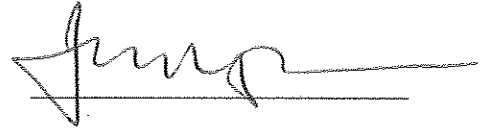
212

Single Audit Reporting Package(BERC)  
Ccp# 31, 1/19

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in black ink, appearing to be "J. Kearns", written over a horizontal line.

Recommended by the Committee on Finance

14

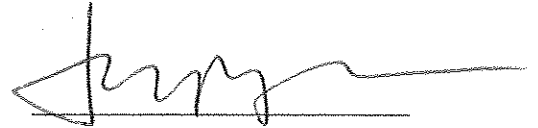
00060

Audit Report-One Sunset and The BERC Loan Program(Compt)  
Ccp# 12, 2/16

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be "Kearns", written over a horizontal line.

Recommended by the Committee on Finance

15

00061

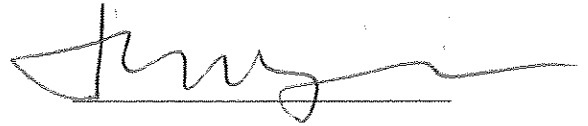
214

M. LoCurto, Article-City of Rochester Reassessment (#40, 1/19)  
Ccp# 64, 2/16

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be "Kearns", written over a horizontal line.

Recommended by the Committee on Finance

16

215

**COMMUNITY DEVELOPMENT**  
**(Michael J. LoCurto, Chairman)**



Report of Sale – Westerly Portion of 94 Glenwood  
(Item No. 12, C.C.P., Nov. 3, 2010)

That the above item be, and the same hereby is, returned to the Common Council without recommendation.

Mr. LoCurto moved:

That the offer from Ms. Debra L. Jackson, 89 Decker Street, in the sum of One Thousand and Three Hundred Dollars (\$1,300.00) for the purchase of the westerly portion of 94 Glenwood, 25' x 106', be and hereby is accepted; and

That the transfer tax, recording fees and cost of legal description shall be paid by the purchaser; and

That the Office of Strategic Planning be authorized to prepare the necessary documents for the transfer of title and that the Mayor be authorized to execute the same, in accordance with the terms of sale upon which the offer was submitted.

Passed.

Recommended by the Committee on Community Development

  
Chairman

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

Maj - 5  
2/3 - 6  
3/4 - 7

\* \* \*  
\* 9 \* 0 \*  
\* \* \*

Report of Sale – 158 Woodlawn  
(Item No. 14, C.C.P., Nov. 3, 2010)

That the above item be, and the same hereby is, returned to the Common Council without recommendation.

Mr. LoCurto moved:

That the offer from Mr. Nelson Cosgrove, Attorney at Law, for Gospel Expansion Ministries Foundation, Inc., Rev. Otis C. Tillman, 461 Masten Avenue, in the sum of One Thousand and Seven Hundred Dollars (\$1,700.00) for the purchase of 158 Woodlawn, be and hereby is accepted; and

That the transfer tax, recording fees and cost of legal description shall be paid by the purchaser; and

That the Office of Strategic Planning be authorized to prepare the necessary documents for the transfer of title and that the Mayor be authorized to execute the same, in accordance with the terms of sale upon which the offer was submitted.

Passed.

Recommended by the Committee on Community Development

  
Chairman

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

Maj - 5  
2/3 - 6  
3/4 - 7

\* \* \*  
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\* \* \*

J. Booth – Bicycle-Pedestrian Advisory Board – Healthy City on the Great Lakes  
(Item No. 45, C.C.P., Nov. 3, 2010)

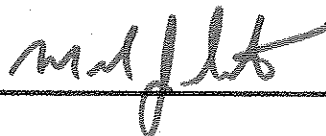
That the above item be, and the same hereby is, returned to the Common Council without recommendation.

Mr. LoCurto moved:

That the Common Council adopts the report and its recommendations as contained in the Healthy City on the Great Lakes report, as attached to the above communication, and authorizes all future steps to amend the city's comprehensive plan to improve the health and quality of life for Buffalo's residents.

Passed.

Recommended by the Committee on Community Development  
Chairman



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221

\* AYE \* NO \*

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FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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	*	*	*	*

Maj - 5  
2/3 - 6  
3/4 - 7

00065

222

P. Cammarata-Public Notice-Brownfield Cleanup Prog-193 Ship Canal Pkwy  
(#46, 11/3)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Community Development

mlt

20

Report of Sale – 285 Loepere  
(Item No. 14, C.C.P., Oct. 19, 2010)  
(Item No. 66, C.C.P., Nov. 3, 2010)

That the offer from Mr. Mohammad A. Khan and Mrs. Surriaya Khan, residing at 993 Sycamore Street, in the sum of Three Thousand and Seven Hundred Dollars (\$3,700.00) for the purchase of 285 Loepere Street, be and hereby is accepted; and

That the transfer tax, recording fees and cost of legal description shall be paid by the purchaser; and

That the Office of Strategic Planning be authorized to prepare the necessary documents for the transfer of title and that the Mayor be authorized to execute the same, in accordance with the terms of sale upon which the offer was submitted.

Passed.

Recommended by the Committee on Community Development  
Chairman





224

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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Maj - 5  
2/3 - 6  
3/4 - 7

00067

225

Decisions Regarding Savarino v COB (2010-3489)(CC)  
(#27, 10/19)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Community Development

A handwritten signature in dark ink, appearing to be 'm. j. l. t.', written over a horizontal line.

22

00068

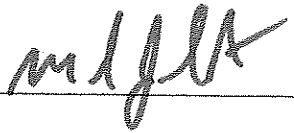
226

M. Kearns-News Article Tale of Two Pities  
(#46, 10/19)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Community Development

A handwritten signature in dark ink, appearing to be 'm l g l a', written over a horizontal line.

23

00069

227

K. Connor-Report -Fishing for Taxpayer Cash-Bass Pro  
(#44, 6/22)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Community Development

*mjltb*

24

00070

328

M. Kearns-Subsidies for Bass Pro  
(#55, 6/22)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Community Development

mflx

25

00071

229

Response to CCP #108, 7/20-Bonuses to Employees  
(#63, 9/7)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Community Development

A handwritten signature in dark ink, appearing to be "M. J. L. B.", written over a horizontal line.

26

00072

230

M. LoCurto-Decommission of BERC and Expand BURA  
(#34, 3/2)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Community Development

*mj. lb*

27

00073

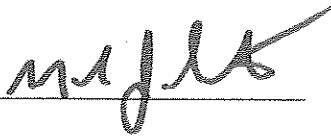
231

Eliminating BERC As a Step Towards New Approach for Economic Development  
(except 1<sup>st</sup> Res) (#71, 1/5)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Community Development



28



832

## LEGISLATION

(Joseph Golombek Jr., Chairman)

233

D. Sutton, Petition to Use 448 Elmwood Tenant Build-Out for a Sit-In Restaurant  
(Item No. 52, C.C.P., Nov. 3, 2010)

That after the public hearing before the Committee on Legislation on November 9, 2010, the petition of D. Sutton, agent, for permission to use 448 Elmwood to build-out for a sit-in restaurant be, and hereby is approved.

Passed.

Recommended by the Committee on Legislation

  
Chairman

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\* AYE \* NO \*

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FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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Maj - 5  
2/3 - 6  
3/4 - 7

Ohl & O - Establish Alternate Parking on S. Ogden  
Between Clinton & Griswold for Winter Months  
(Item No. 53, C.C.P., Nov. 3, 2010)

That the above item be, and the same hereby is, returned to the Common Council without recommendation.

Mr. Golombek moved:

That the Commissioner of Public Works, Parks and Streets, be, and he hereby is authorized to review the establishment of alternate parking on South Ogden between Clinton and Griswold Streets throughout the winter months between November and April and report back to this Common Council for further recommendation.

Passed.

Recommit

Recommended by the Committee on Legislation

James H. H. H. H.  
Chairman

TAB:rmv

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RECOM

30

235A

**Mr. Golombek moved that the above item be recommitted to the Committee on Legislation.**

**ADOPTED**

Request Ordinance Amendment – Chapter 479 Traffic Ordinances  
Reduce Speed Limit – Marine Drive between Erie and Commercial Streets  
(Item No. 20, C.C.P., Nov. 3, 2010)

That the Commissioner of the Department of Public Works, Parks and Streets after getting approval as to from the Acting Corporation Counsel be, and he hereby is authorized to amend Chapter 479 Traffic Ordinances, reducing speed limit to fifteen (15) miles per hour on Marine Drive between Erie and Commercial Streets, as more fully described in the above communication and file the Amendment with this Common Council.

Passed.

Recommended by the Committee on Legislation

Joel G. Lambert, Jr.  
Chairman

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31

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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Maj - 5  
2/3 - 6  
3/4 - 7

00077

Restaurant Dancing Class IV – 3144 Main Street  
(Item No. 35, C.C.P., Nov. 3, 2010)

That the above item be, and the same hereby is returned to the Common Council without recommendation.

Mr. Golombek moved:

That pursuant to Chapter 150 of the City Code, the Director of Permit and Inspection Services be, and he hereby is authorized to grant a Restaurant Dancing Class IV License to Danielle Dwyer, d/b/a Mojo's located at 3144 Main Street.

Passed!

Recommended by the Committee on Legislation

  
Chairman

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RECOM

32



238A

**Mr. Golombek moved that the above item be recommitted to the Committee on Legislation**

**ADOPTED**

239

D. Land, Petition to use 2616 Main – Convert Take-out to a Sit-down Bar/Restaurant  
(Item No. 50, C.C.P., Oct. 19, 2010)  
(Item No. 71, C.C.P., Nov. 3, 2010)

That the above item be, and the same hereby is, returned to the Common Council without recommendation.

Mr. Golombek moved:

That after the public hearing before the Committee on Legislation on October 26, 2010, the petition of D. Land, agent, for permission to use 2616 Main Street for a take-out to a sit-down bar/restaurant be, and hereby is approved.

Passed.

Recommended by the Committee on Legislation

  
Chairman

TAB:rmv

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\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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	*	*	0	*
	*	*	*	*

Maj - 5  
2/3 - 6  
3/4 - 7

00079

241

Hope Gardens, Use 58 Oberlin for a HSF (Fill)(no pub hrg)  
(#52, 10/19)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Legislation

Joseph H. Habel, Jr.

241

00080

242

M. Kearns-J. Logan-Concerns Verizon FiOS  
(#53, 6/22)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Legislation

James H. H. H. H.

35

00081

243

G. Hill, Agent, Use 1346 Kensington For A Take Out Restaurant  
(pub hrg 5/18)(Unvi)(#76, 5/11)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Legislation

Joseph H. Habel, Jr.

36

00082

244

Create a City of Buffalo Employment Protection Act  
(Item No. 129, C.C.P., Sep. 16, 2008)  
(Item No. 95, C.C.P., July 31, 2009)

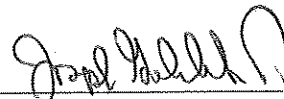
That the above item be, and the same hereby is returned to the Common Council without recommendation.

Mr. Golombek moved:

~~That the above-mentioned item be and the same is hereby recommitted to the Committee on Legislation.~~

Adopted.

Recommended by the Committee on Legislation

  
Chairman

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RECEIVED AND FILED

R4F

37

00083

245

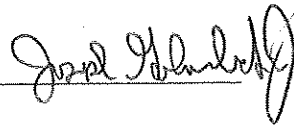
R. Taczkowski-Marine Drive Traffic and Pedestrian Study

(#38, 3/2)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Legislation



356



00084

246

Marine Drive Apt-Req Signs Posted for No Standing 11/1 to 4/1

(CCP 84, 2/3)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Legislation

Jose R. Mendez

25

00085

247

Marine Drive Apt-Req Speed Limit Change Marine Dr and Front of Naval Park

(CCP #35, 2/3)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Committee on Legislation

Joseph H. H. H.

40

Council Manger Form of Government for the City of Buffalo  
(Item No. 105, C.C.P., Sep. 30, 2008)

That the above item be, and the same hereby is returned to the Common Council without recommendation.

Mr. Golombek moved:

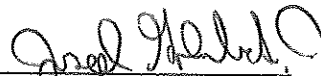
That the City of Buffalo Common Council recommends the President of the Common Council develop a listing of individuals to serve on the Council-Manger Task Force, requesting such names from various elected officials and organizations; for example, the Center for Governmental Research; Syracuse University's Maxwell School of Citizenship and Public Affairs, the Mayor of the City of Buffalo; the International City/County Management Association; the New York State City/County Management Association; the Buffalo Niagara Partnership to mention a few; and

That the President of the Common Council will submit this list to the Common Council who will select 9-11 individuals to serve on the Council-Manager Task Force, with the understanding this body will prepare a detailed report to the Common Council.

Adopted.

2<sup>ND</sup> + 3<sup>RD</sup> Resolves

Recommended by the Committee on Legislation

  
Chairman

249

## **Special Committees**

**EDUCATION**  
**(DEMONE A. SMITH, Chairman)**

00087

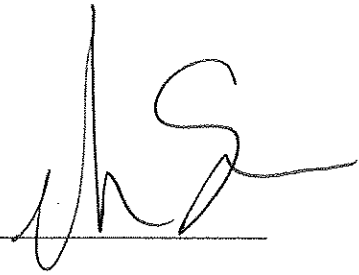
251

LP Ciminelli-Board Packet Documents July 2010  
(#76, 9/7)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Special Committee on Education

A handwritten signature in black ink, appearing to be 'JHS', is written over a horizontal line.

42

00088

252

LP Ciminelli-Board Packet Documents August 2010  
(#77, 9/7)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Special Committee on Education

A handwritten signature, possibly reading "MSE", is written over a horizontal line.

43

00089

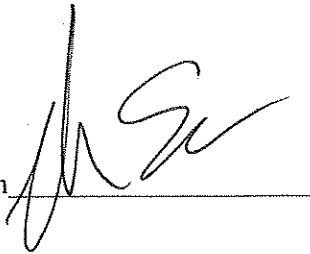
253

LP Ciminelli-Board Packet Documents September 2010  
(#41, 9/21)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Special Committee on Education

A handwritten signature in black ink, appearing to be 'J. S.', is written over a horizontal line.

44



00090

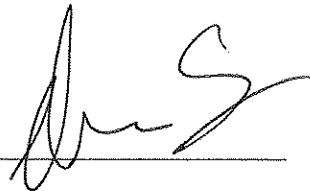
254

LP Ciminelli-Board Packet Documents May 2010  
(#60, 5/11)

That the above item be the same and hereby is Received and Filed.

ADOPTED

Recommended by the Special Committee on Education

A handwritten signature in black ink, appearing to be 'D. S.', written over a horizontal line.

45

255

# **WATERFRONT DEVELOPMENT**

**MICHAEL P. KEARNS**

**CHAIRMAN**

00091

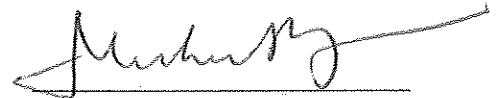
256

Y. Hreshchyshyn-Comments Public Hearing-Canal Harbor(#50, 11/24)  
Ccp# 69, 12/8

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to read "Markus", is written over a horizontal line.

Recommended by the Special Committee on Waterfront Development

46

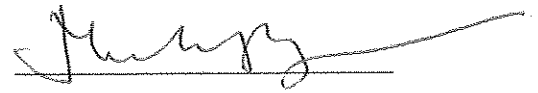
00092

NYS Env Quality Review Act-Canal Side Project  
Ccp# 51, 2/16

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be "J. Kearns", written over a horizontal line.

Recommended by the Special Committee on Waterfront Development

47

00093

258

M. Galivan-Info Erie Canal Dev Corp & Req Info Legal Fees  
Cep# 42, 10/27

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be 'J. W. ...', written over a horizontal line.

Recommended by the Special Committee on Waterfront Development

48

00094

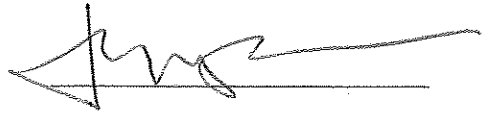
259

M. Kearns-Erie Canal Motor Coach Drop Off/Pickup & Parking  
Ccp# 57, 6/23

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in black ink, appearing to be 'JMS', written over a horizontal line.

Recommended by the Special Committee on Waterfront Development

49

00095

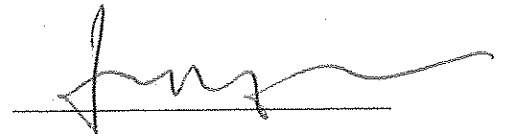
260

W/ Front Village Advisory Council-Req City Update on Urban Renewal Plan  
Ccp# 49, 3/17

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be "J. Kearns", written over a horizontal line.

Recommended by the Special Committee on Waterfront Development

50

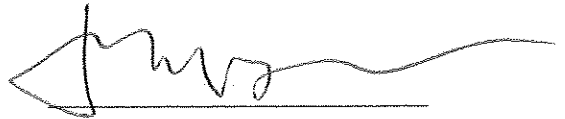
00096

D. Franczyk-H&A Paris-Erie Canal Drama Theater  
Ccp# 31, 1/20

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be 'J. M. V.', written over a horizontal line.

Recommended by the Special Committee on Waterfront Development

51



00097

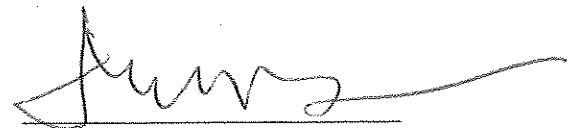
262

M. Kearns-M. Stark-Waterfront Hotel Plans  
Ccp# 21, 1/6

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in dark ink, appearing to be 'J. Kearns', written over a horizontal line.

Recommended by the Special Committee on Waterfront Development

252

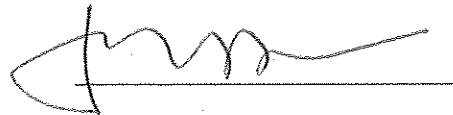
00098

M. Kearns-J. Dailey-Slip Holders Concerns Erie Basin Marina  
Ccp# 69, 9/2

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke, positioned above a solid horizontal line.

Recommended by the Special Committee on Waterfront Development

53

00099

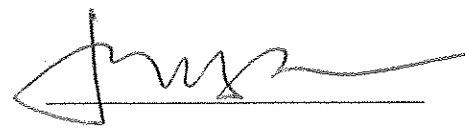
204

L. Levy-Parking Issues Inner Harbor Development  
Ccp# 40, 9/18

Mr. Kearns moved

That the above item be the same and hereby is Received and Filed

ADOPT

A handwritten signature in black ink, appearing to be 'J. Kearns', written over a horizontal line.

Recommended by the Special Committee on Waterfront Development

54

265

## RESOLUTIONS

RESOLUTION

**Sponsor:** Mr. Fontana

**Re:** Fee Waivers for Athletic Leagues in City Community Centers

**Whereas:** For many years the community and recreation centers have hosted adult athletic leagues for residents of the City of Buffalo; and

**Whereas:** These leagues were able to function at little or no cost to its participants, providing a valuable service to the community; and

**Whereas:** A policy by the law department requires that any athletic leagues functioning within city community and recreation centers must take out insurance policies for at least \$1 Million in coverage, indemnifying the City of Buffalo against any liability on these properties; and

**Whereas:** This policy places a great financial strain on these athletic leagues which has rendered many of them incapable of continuing to function, thus preventing many residents from enjoying their favorite activities.

**Now, Therefore, Be It Resolved:**

That the Commissioner of the Department of Public Works, Parks, and Streets be allowed to waive insurance requirements on a case-by-case basis at his discretion, allowing these athletic leagues to continue to function despite economic restrictions.



Richard A. Fontana  
Majority Leader

**PASSED**

39A

RT

267

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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Maj - 5  
2/3 - 6  
3/4 - 7

RESOLUTION

Sponsored by: Mr. Fontana, *MR HAYNES*

**Re: Waiver of Permit and Inspection Fees for Healthy Home of Science Rehabilitation Project**

- Whereas:** There is an unfortunate trend of decline in the housing stock on the East side of Buffalo; and
- Whereas:** The house located at 276 Southampton St. was slated for demolition despite its potential for rehabilitation, contributing to the decline in housing stock; and
- Whereas:** Mrs. Elizabeth Triggs of the We Care/None Like You Community Block Club works tirelessly toward the rehabilitation and improvement of Buffalo's distressed neighborhoods; and
- Whereas:** In October of 2010 Mrs. Triggs and We Care/None Like You obtained ownership of the house at 276 Southampton for green rehabilitation in the Healthy Home of Science Project; and
- Whereas:** Details of the project entailed total environmentally conservative rehabilitation and reconstruction of the property including new siding, roofing, electrical, plumbing, heating, doors, windows, and aesthetic finishing to be completed through volunteer union partnership programs; and
- Whereas:** Completion of the project will result in an available brand new living space as well as a beacon of potential for the rehabilitation of distressed properties across the City of Buffalo.

**Now, Therefore, Be It Resolved:**

That the Common Council requests that the Department of Economic Development, Permits, and Inspections waive any and all fees associated with building permits and home inspection to defray some of the cost of the project from the We Care/None Like You Community Block Club, a not-for-profit organization.



Richard A. Fontana  
Majority Leader

**PASSED**

\* AYE \* NO \*

				*
FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*
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Maj - 5  
2/3 - 6  
3/4 - 7



RESOLUTION

Sponsor: Mr. Franczyk

Re: New Appointments to the Police Reorganization Commission

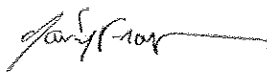
Whereas: The Common Council recently adopted resolutions that called for the empanelment and empowerment of a Joint Commission to Examine Police Reorganization to review the organizational structure of the Buffalo Police Department, evaluate its strengths and weaknesses, and develop a plan to reorganize the Buffalo Police Department in a way which balances the need to efficiently use personnel and equipment with the responsibility to keep neighborhood residents safe and maximize community policing; and

Whereas: At this time, a number of appointments to the Joint Commission to Examine Police Reorganization currently remain unfilled; and

Now, Therefore Be It Resolved:

That I hereby submit the names of the following persons to serve as Common Council appointments on the Joint Commission to Examine Police Reorganization (current members and **new appointments** appear below):

<u>Council Appointments</u>	<u>Appointee</u>	<u>Appointee</u>
• Delaware District:	H. Wayne Gerhart 86 Cleveland	<b>Richard Raines</b> <b>220 Wellington Rd.</b>
• Ellicott District:	James J. Sobol 18 Michael's Walk	<b>Lesley Haynes</b> <b>155 Prospect Ave.</b>
• Fillmore District:	Joseph Mascia 47 Marine Drive Apt. 4-E	Darnell Jackson 28 Barthel
• Lovejoy District:	<b>Anthony Lebrun</b> <b>1847 South Park Ave.</b>	<b>Cliff Braxton</b> <b>85 Kerns</b>
• Masten District:	<i>To Be Determined</i>	<i>To Be Determined</i>
• Niagara District:	<b>Terry O'Neill</b> <b>102 Willett Street</b>	<i>To Be Determined</i>
• North District:	<i>To Be Determined</i>	<i>To Be Determined</i>
• South District:	Thomas Higgins 347 Whitfield	Richard Donovan 57 Susan Lane
• University District:	Linwood Roberts 296 Highland Parkway	Ricky M. Allen, Sr. 191 Roosevelt Ave.
<u>PBA Representatives:</u>	<b>Robert Meegan, Jr. (or his designee)</b> <b>74 Franklin</b>	<b>Sean O'Brien</b> <b>74 Franklin</b>
<u>Police Commissioner:</u>	Ex-officio (or his designee)	
<u>Mayoral Appointments:</u>	<i>To Be Determined</i>	<i>To Be Determined</i>
	<i>To Be Determined</i>	<i>To Be Determined</i>



David A. Franczyk  
Common Council President  
Fillmore District Council Member

ADOPT

39C

RF

## RESOLUTION

**By:** Mr. Curtis Haynes, Jr.

**Co-Sponsors:** Mr. Franczyk, Mr. Fontana, Mr. Golombek, Mr. Kearns, Mr. LoCurto, Mr. Rivera, Mrs. Russell, Mr. Smith

**Re:** Step Up and Take a Stand Against Violence Day

**Whereas:** Recent violent, tragic events in Buffalo have brought citizens together in concern about the effect of crime on families and friends, the safety, security and quality of life of residents and businesses and the public image of our City; and

**Whereas:** Citizens, business owners, enforcement and elected leadership all agree that there is a need for greater understanding of the causes of crime, and greater cooperation in seeking its remedies; and

**Whereas:** It is acknowledged that unemployment, underemployment and poverty are three major causes of violent crime and gun-related violence, especially in their impact upon youth; and

**Whereas:** It is also acknowledged that education and training are two major tools in the efforts to save the young from the impact and seduction of crime; and

**Whereas:** The Common Council of the City of Buffalo has voted to establish a Community Building Task Force that will be open to all interested citizens in the residential, academic, faith, enforcement and business communities to help define a strategy to control crime in Buffalo, and make its recommendations to the Common Council for action; and

**Whereas:** Numerous organizations and individuals have taken it upon themselves to independently organize and mobilize to seek solutions to the problem of violent and gun-related crime in our community, including organizations like Stop the Violence Coalition, East Side Redevelopment Task Force, The Peace Organization, The Boys and Girls Clubs, The Peaceful World Movement; Lessons of Homicides Team, the Block Club Council, and many other worthy groups; and

**Whereas:** Many citizens have sought a way to take a stand against violence and publicly show their concern in a positive manner; and

**Whereas:** The US Center for Disease Control and Prevention has stated that youth violence should be treated as a disease by prescribing adults as mentors and role models, maximizing efforts to use public and private community resources to reduce the social and economic causes of violence in the environment of young people; and

272

**Whereas:** It is fitting that City government sponsor an action that encourages individuals and organizations to join together in taking a stand against violence, and in favor of the education and mentoring of our youth, encouraging parents, individuals and organizations to step up to their responsibility of teaching and showing children that there are alternatives to violence; and

**Whereas:** Charles Burgin has locally sponsored a petition drive with the goal of 50,000 signatures to illustrate the solidarity of our community in taking a stand for non-violence through the expansion of mentoring programs in safe environments for young people; and

**Whereas:** This independent petition drive is known as "Brotherman's Progress" to indicate that to achieve progress, we must all move forward together, united in brotherhood and sisterhood in a stand against violent crime for the future of our youth; and


**Whereas:** These initiatives are in the best interests of the citizenry of the City of Buffalo.

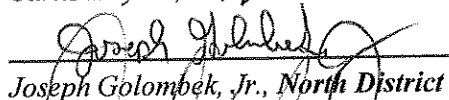
**NOW, THEREFORE BE IT RESOLVED:**

That the Common Council of the City of Buffalo does hereby designate November 17, 2010 as "Step Up and Take a Stand Against Violence Day," to encourage interested individuals and organizations to take a stand against violence in our community and support the petition drive; and

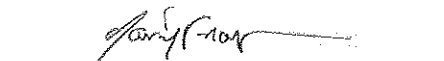
**NOW, THEREFORE BE IT FINALLY RESOLVED:**

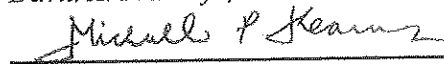
The Common Council does also encourage other governing bodies and community organizations to sponsor similar events since violent crime has no boundaries, and the future of youth concerns us all.

  
Curtis Haynes, Jr., *Ellicott District*

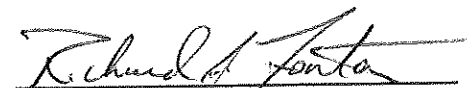
  
Joseph Golombek, Jr., *North District*

  
David A. Rivera, *Niagara District*

  
David A. Franczyk, *Fillmore District*

  
Michael P. Kearns, *South District*

  
Bonnie E. Russell, *University District*

  
Richard A. Fontana, *Lovejoy District*

  
Michael J. LoCorto, *Delaware District*

  
Demone A. Smith, *Masten District*

**ADOPTED**

## RESOLUTION

**Sponsors: Michael J. LoCurto and Michael P. Kearns**

**Subject: Lack of Compliance with City Charter Article 20-31**

**Whereas:** The City Charter imposes on its City Departments, the Citizens Planning Commission and its Elected Officials, an annual requirement to prepare and adopt a Capital Improvement Program (CIP) Spending Plan and Budget; and

**Whereas:** In conjunction with the annual adoption of the CIP Plan and Budget, a substantial amount of funds are obtained from Bonded Debt thereby imposing a corresponding obligation on the City to fund annual Principal and Interest payments on such debt as part of the process of borrowing money to fund and facilitate work and improvements of a capital nature; and

**Whereas:** It is in the best interests of the City and its taxpayers that the work and improvements identified in CIP Spending Plan and Budget are awarded and completed in a timely manner; and

**Whereas:** Idle bond fund proceeds cause planners and approvers to question the original need for borrowing such funds when they are not expended in a timely manner; and

**Whereas:** The crafters of the City Charter in an effort to bring attention to this important matter crafted Article 20-31 of the Charter which states that "On April 30 and October 31, the mayor shall submit to the council, the comptroller, and the citizens planning council a report describing the progress of the capital improvement projects, including schedules and explanations of any delays or anticipated cost overruns"; and

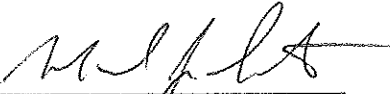
**Whereas:** On the occasion of this Common Council meeting dated November 16, 2010, the City Clerk and the Common Council have yet to receive the report required by City Charter Article 20-31.


**Now Therefore Be It Resolved,**

That this Honorable Body hereby requests of the Mayor, that he immediately file with the City Clerk for presentation to this Common Council, the report required by City Charter Article 20-31; and

**Be It Finally Resolved That:**

That a copy of this communication be forwarded to the Office of the Mayor of the City of Buffalo to ensure his immediate response.

  
**MICHAEL J. LOCURTO**  
 Common Council Member  
 Delaware District

  
**MICHAEL P. KEARNS**  
 Common Council Member  
 South District

40A

TRF

~~ADOPT~~ APP

ADOPT RESOLVES  
 WHEREAS - BUDGET

## ANNOUNCEMENT OF COMMITTEE MEETINGS

The following meetings are scheduled. All meetings are held in the Common Council Chambers, 13<sup>th</sup> floor City Hall, Buffalo, New York, unless otherwise noted.

**Regular Committees**

Committee on Civil Service	Tuesday, November 23, 2010 at 9:45 o'clock A.M.
Committee on Finance following Civil Service	Tuesday, November 23, 2010 at 10:00 o'clock A.M.
Committee on Comm. Dev.	Tuesday, November 23, 2010 at 1:00 o'clock P.M.
Committee on Legislation	Tuesday, November 23, 2010 at 2:00 o'clock P.M.

(Public Disclaimer): All meetings are subject to change and cancellation by the respective Chairmen of Council Committees. In the event that there is sufficient time given for notification, it will be provided. In addition, there may be meetings set up whereby the City Clerk's Office is not made aware; therefore, unless we receive notice from the respective Chairmen, we can only make notification of what we are made aware.

00106

275

No.

Adjournment

*RUSSELL*

On a motion by Mr. Fontana, Seconded by Mr. ~~Kearns~~, the Council adjourned at

*2:50 PM*

GERALD CHWALINSKI  
CITY CLERK

**SPECIAL SESSION**  
**November 9, 2010**  
**AT 1:55 P.M.**

1. Call for Special Session \_\_\_\_\_ R&F
2. 2010-2011 Annual Action Plan Amend. (Yr 36 CDBG) \_\_\_\_\_ APP
3. Adjourn \_\_\_\_\_ R&F

**COMMON COUNCIL  
CITY HALL – BUFFALO  
SPECIAL SESSION  
November 9, 2010  
at 1:55 P.M.**

**PRESENT : David A. Franczyk President of the Council, and Council Members  
Fontana, Golombek, Haynes, Kearns, LoCurto, Rivera, Russell, Smith - 9.  
ABSENT None.**

\* AYE \* NO \*

				*
FONTANA	*	/	*	*
FRANCZYK	*	/	*	*
GOLOMBEK	*	/	*	*
HAYNES	*	/	*	*
KEARNS	*	/	*	*
LOCURTO	*	/	*	*
RIVERA	*	/	*	*
RUSSELL	*		*	*
SMITH	*	/	*	*

**Maj - 5  
2/3 - 6  
3/4 - 7**

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*	*	*



November 8, 2010

Mr. Gerald A. Chwalinski  
City Clerk  
1308 City Hall  
Buffalo, New York

No 1  
CALL FOR  
SPECIAL SESSION

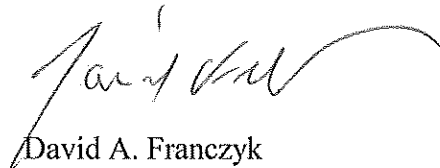
Dear Mr. Chwalinski:

Pursuant to Section 3.9 of the Charter of the City of Buffalo, upon the written request of Five Councilmembers, dated November 8, 2010 presented to you herewith, I hereby call a Special Meeting of the Common Council to be held in the Council Chambers, City Hall, Buffalo, New York, on November 9, 2010 at 1:55 P.M. for the following pupose:

To receive and take appropriate action on :

1. 2010-2011 Annual Action Plan Amend. (yr 36 CDBG)

Yours very truly,



David A. Franczyk

President of the Council

# OFFICE OF THE CITY CLERK

**GERALD A. CHWALINSKI**

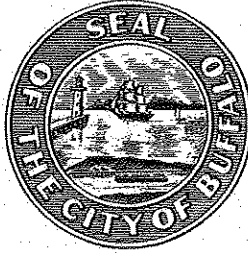
*City Clerk  
Registrar of Vital Statistics*

**WILMER OLIVENCIA, JR.**

*Deputy City Clerk*

**DIANA RICO**

*Deputy City Clerk Vital Statistics  
Deputy Registrar of Vital Statistics*



65 NIAGARA SQUARE  
ROOM 1308 CITY HALL  
BUFFALO, NEW YORK 14202  
PHONE: (716) 851-5431  
FAX: (716) 851-4845

November 8, 2010

## **TO EACH MEMBER OF THE COMMON COUNCIL:**

YOU ARE HEREBY NOTIFIED that, pursuant to Section 3.9 of the Charter of the City of Buffalo, upon the written request of Five Councilmembers, dated November 8, 2010, DAVID A. FRANCZYK, President of the Common Council, has called a Special Meeting of the Common Council, to be held in the Council Chambers, City Hall, Buffalo, New York, on November 9, 2010 at 1:55 P.M. for the following purpose:

To receive and take appropriate action on all items relating to

1. 2010-2011 Annual Action Plan Amend. (yr 36 CDBG)

Yours very truly,

Gerald A. Chwalinski  
City Clerk

November 8, 2010

Hon. David A. Franczyk  
President Common Council  
1315 City Hall  
Buffalo, New York

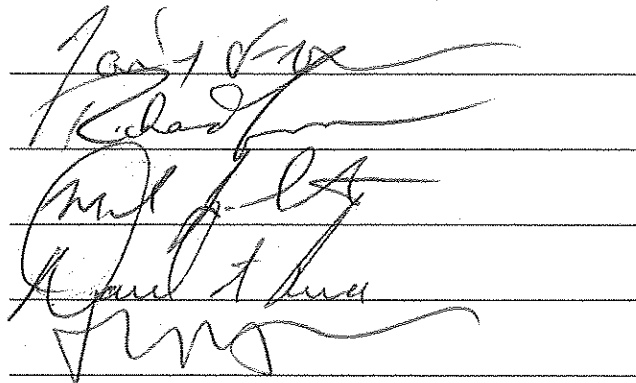
Dear Sir:

WE, the undersigned, members of the Common Council, hereby request that you call a Special Meeting of the Common Council, pursuant to Section 3.9 of the Charter of the City of Buffalo, for the following purpose:

To receive and take appropriate action on

1. 2010-2011 Annual Action Plan Amend. (yr 36 CDBG)

We request that this Special Meeting be held on November 9, 2010 at 1:55 P.M.

  
The block contains five handwritten signatures, each written over a horizontal line. The signatures are in cursive and appear to be of various council members.

Pursuant to Rule 2 of the Rules of Order of the Common Council of the City of Buffalo, each of the following named members of the Common Council, to wit:

RICHARD FONTANA  
CURTIS HAYNES JR  
MICHAEL LOCURTO  
BONNIE E. RUSSELL

JOSEPH GOLOMBEK  
MICHAEL KEARNS  
DAVID A. RIVERA  
DEMONE SMITH

hereby states that he/she received twenty-four (24) hours' notice of the time and purpose of the Special Meeting of the Common Council duly called to be held on November 9, 2010 at 1:55 P.M.

*Richard Fontana*  
*Michael Locurto*  
*David A. Rivera*  
*Demone Smith*

*Joseph Golombek*  
*Sandy Batten for Joseph Golombek*  
*Bonnie E. Russell*  
*Traci M. Carter for Curtis Haynes*

STATE OF NEW YORK  
COUNTY OF ERIE) ss:  
CITY OF BUFFALO)

On this 7th day of September 2010, before me, the subscribers, personally appeared

To me known to be the same persons described in and who executed the foregoing instrument, and they duly and severally acknowledged to me that they executed the same.

*Michael Chivalone*

Commissioner of Deeds, in and for  
the City of Buffalo, N.Y.  
My Commission expires 12/31/10

TO: THE COMMON COUNCIL  
FROM: THE EXECUTIVE DEPARTMENT  
SUBJECT: 2010-2011 Annual Action Plan Amendment (Year 36 Community Development Block Grant)

DATE: October 14, 2010

Attached for Your Honorable Body's consideration and approval, please find an amendment to the City of Buffalo's 2010-2011 Annual Action Plan in accordance with an increased allocation of funds set forth by the U.S. Department of Housing & Urban Development.

Following Common Council approval of the 2010-2011 Action Plan on \_\_\_\_, the U.S. Department of Housing and Urban Development awarded to the City of Buffalo \$1,317,551 in additional funding for the Community Development Block Grant Program (CDBG) and \$43,367 more in funding for Housing Opportunities for Persons with Aids (HOPWA).

The City proposes to allocate these new funds as follows:

**CDBG Program**

Public Improvements – new activity for improvements to streets, sidewalks and Public Facilities in low-moderate income neighborhoods throughout the City of Buffalo \$658,775.50

Demolitions Citywide - increase \$658,775.50  
Total \$1,317,551.00

**HOPWA**

Benedict House - increase \$43,367  
Total \$43,367

Pursuant to HUD requirements, the City's 2010-2011 Annual Action Plan Amendments is designed to carry out the objectives approved in the city's 2008-2012 Consolidated Plan. Following Common Council approval of the plan, the City will hold a public hearing followed by a 30-day public comment period.

**PASSED**

**REFERRED TO THE COMMITTEE  
ON COMMUNITY DEVELOPMENT.**

*Byron W. Brown*  
Byron W. Brown  
Mayor



**City of Buffalo**  
**Byron W. Brown, Mayor**

**2010-2011 Annual Action Plan Amendment  
Recommendation**

**Community Development Block Grant (CDBG)  
HOME Investment Partnership Program (HOME)  
Emergency Shelter Grant (ESG)  
Housing Opportunities for People with AIDS (HOPWA)**

**Substantial Amendment  
October 14, 2010**

**Office of Strategic Planning  
Brendan R. Mehaffy, Executive Director**

**SUBSTANTIAL AMENDMENT TO THE CITY's 2010-2011 ANNUAL ACTION PLAN**

On March 31, 2010, the official 2010 formula grant allocation amounts were released by the U.S. Department of Housing & Urban Development. The City of Buffalo received additional funding than was estimated for the Community Development Block Grant (CDBG) and the Housing Opportunities for Persons with AIDS (HOPWA) Grant. These are the increases:

	<u>Actual</u>	<u>Estimated</u>	<u>Difference</u>
CDBG	\$17,409,073	\$16,091,522	\$1,317,551
HOPWA	\$ 565,329	\$ 521,962	\$ 43,367

To account for these increases, the City proposes the following changes to its 2010-2011 Annual Action Plan budget:

**CDBG Program**

Public Improvements – new activity for improvements to streets, sidewalks and Public Facilities in low-moderate income neighborhoods throughout the City of Buffalo	\$658,775.50
Demolitions Citywide - increase	<u>\$658,775.50</u>
Total	\$1,317,551.00

**HOPWA**

Benedict House - increase	<u>\$43,367</u>
Total	\$43,367

The City has revised the 2010-2011 Annual Action Plan Budget as stated above.

The City will conduct a Public Hearing to invite citizens to review and comment on the changes to the CDBG and HOPWA Programs. Upon commencement of the Public Hearing, there will be a 30 day comment period.

\* AYE \* NO \*

FONTANA	*	*	*	*
FRANCZYK	*	*	*	*
GOLOMBEK	*	*	*	*
HAYNES	*	*	*	*
KEARNS	*	*	*	*
LOCURTO	*	*	*	*
RIVERA	*	*	*	*
RUSSELL	*	*	*	*
SMITH	*	*	*	*

*	*	*
*	8	*
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*	*	*

Maj - 5  
2/3 - 6  
3/4 - 7



No. 3

Adjournment

On a motion by Councilmember Fontana, Seconded by *Jolombek*, the Council  
adjourned at *2:04 p.m.*

GERALD A. CHWALINSKI  
CITY CLERK